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The Romance of Exploration,

BEING

A NARRATIVE COMPILED FROM THE JOURNALS

OF

FIVE EXPLORING EXPEDITIONS

INTO AND THROUGH

Central South Australia, and Western Australia,

FROM 1872 TO 1876.

BY

ERNEST GILES,

Fellow, and Go'd Medallist, of the Royal Geographical Society of London.

GO FORTH, MY BOOK, AND SHOW THE THINGS,
PILGRIMAGE UNTO THE PILGRIM BRINGS.
Bunyan.

IN TWO VOLUMES.—VOL. I.

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AUTHOR'S NOTES.

THE original journals of the field notes, from which the present narrative is compiled, were published, as each expedition ended, as parliamentary papers by the Government of the Colony of South Australia.

The journals of the first two expeditions, formed a small book, which was distributed mostly to the patrons who had subscribed to the fund for my second expedition. The account of the third, found its way into the South Australian *Observer*, while the records of the fourth and fifth journeys remained as parliamentary documents, the whole never having appeared together. Thus only fragments of the accounts of my wanderings became known; and though my name as an explorer has been heard of, both in Australia and England, yet very few people even in the Colonies are aware of what I have really done. Therefore it was thought that a work embodying the whole of my explorations might be acceptable to both English and Colonial readers.

Some years have been allowed to elapse since these journeys were commenced; but the facts are the same, and to those not mixed up in the adventures, the incidents as fresh as when they occurred.

Unavoidably, I have had to encounter a large area of desert country in the interior of the colonies of South Australia, and Western Australia, in my various wanderings; but I also discovered considerable tracts of lands watered and suitable for occupation.

It is not in accordance with my own feelings in regard to Australia that I am the chronicler of her poorer regions; and although an Englishman, Australia has no sincerer well-wisher; had it been otherwise, I could not have performed the work these volumes record. It has indeed been often a cause of regret that my lines of march should have led me away from the beautiful and fertile places upon Australia's shores, where our countrymen have made their homes.

On the subject of the wonderful resources of Australia I am not called upon to enlarge, and surely all who have heard her name must have heard also of her gold, copper, wool, wine, beef, mutton, wheat, timber, and other products; and if any other evidence were wanting to show what Australia really is, a visit to her cities, and an experience of her civilisation, not forgetting the great revenues of her different provinces, would dispel at once all previous inaccurate impressions of those who, never having seen, perhaps cannot believe in the existence of them.

In the course of this work my reader will easily discover to whom it is dedicated, without a more formal statement under such a heading. The preface, which may seem out of its place, is merely such to my own journeys. I thought it due to my readers and my predecessors in the Australian field of discovery, that I should give a rapid epitome (which may contain some minor errors) of what they had done, and which is here put forward by way of introduction.

Most of the illustrations, except one or two photographs, were originally from very rough sketches, or I might rather say scratches, of mine, improved upon by Mr. Val Prinsep, of Perth, Western Australia, who drew most of the plates referring to the camel expeditions, while those relating to the horse journeys were sketched by Mr. Woodhouse, Junr., of Melbourne; the whole, however, have undergone a process of reproduction at the hands of London artists.

To Mrs. Cashel Hoey, the well-known authoress and Australian correspondent, who revised and cleared my original MSS., I have to accord my most sincere thanks. To Mr. Henniker-Heaton, M.P., who appears to be the Imperial Member in the British Parliament for all Australia, I am under great obligations, he having introduced me to Mr. Marston, of the publishing firm who have produced these volumes. I also have to thank Messrs. Clowes and Sons for the masterly way in which they have printed this work. Also Messrs. Creed, Robinson, Fricker, and Symons, of the publishing staff. The maps have been reproduced by Weller, the well-known geographer.

INTRODUCTION.

BEFORE narrating my own labours in opening out portions of the unknown interior of Australia, it will be well that I should give a succinct account of what others engaged in the same arduous enterprise around the shores and on the face of the great Southern Continent, have accomplished.

After the wondrous discoveries of Columbus had set the Old World into a state of excitement, the finding of new lands appears to have become the romance of that day, as the exploration by land of unknown regions has been that of our time; and in less than fifty years after the discovery of America navigators were searching every sea in hopes of emulating the deeds of that great explorer; but nearly a hundred years elapsed before it became known in Europe that a vast and misty land existed in the south, whose northern and western shores had been met in certain latitudes and longitudes, but whose general outline had not been traced, nor was it even then visited with anything like a systematic geographical object. The fact of the existence of such a land at the European antipodes no doubt set many ardent and adventurous spirits upon the search, but of their exploits and labours we know nothing.

The Dutch were the most eager in their attempts, although Torres, a Spaniard, was, so far as we know, the first to pass in a voyage from the West Coast of America to India, between the Indian or Malay Islands, and the great continent to the south; hence we have Torres Straits. The first authentic voyager, however, to our actual shores was Theodoric Hertoge, subsequently known as Dirk Hartog—bound from Holland to India. He arrived at the western coast between the years 1610 and 1616. An island on the west coast bears his name: there he left a tin plate nailed to a tree with the date of his visit and the name of his ship, the Endragt, marked upon it. Not very long after Theodoric Hertoge, and still to the western and north-western coasts, came Zeachern, Edels, Nuitz, De Witt, and Pelsart, who was wrecked upon Houtman's Albrolhos, or rocks named by Edels, in his ship the Leewin or Lion. Cape Leewin is called after this vessel. Pelsart left two convicts on the Australian coast in 1629. Carpenter was the next navigator, and all these adventurers have indelibly affixed their names to portions of the coast of the land they discovered. The next, and a greater than these, at least greater in his navigating successes, was Abel Janz Tasman, in 1642. Tasman was instructed to inquire from the native inhabitants for Pelsart's two convicts, and to bring them away with him, *if they entreated him;* but they were never heard of again. Tasman sailed round a great portion of the Australian coast, discovered what he named Van Dieman's land, now Tasmania, and New Zealand. He it was who called the whole, believing it to be one, New

Holland, after the land of his birth. Next we have Dampier, an English buccaneer—though the name sounds very like Dutch; it was probably by chance only that he and his roving crew visited these shores. Then came Wilhelm Vlaming with three ships. God save the mark to call such things ships. How the men performed the feats they did, wandering over vast and unknown oceans, visiting unknown coasts with iron-bound shores, beset with sunken reefs, subsisting on food not fit for human beings, suffering from scurvy caused by salted diet and rotten biscuit, with a short allowance of water, in torrid zones, and liable to be attacked and killed by hostile natives, it is difficult for us to conceive. They suffered all the hardships it is possible to imagine upon the sea, and for what? for fame, for glory? That their names and achievements might be handed down to us; and this seems to have been their only reward; for there was no Geographical Society's medal in those days with its motto to spur them on.

Vlaming was the discoverer of the Swan River, upon which the seaport town of Freemantle and the picturesque city of Perth, in Western Australia, now stand. This river he discovered in 1697, and he was the first who saw Dirk Hartog's tin plate.

Dampier's report of the regions he had visited caused him to be sent out again in 1710 by the British Government, and upon his return, all previous doubts, if any existed, as to the reality of the existence of this continent, were dispelled, and the position of its western shores was well established. Dampier discovered a beautiful flower of the pea family known as the Clianthus Dampierii. In 1845

Captain Sturt found the same flower on his Central Australian expedition, and it is now generally known as Sturt's Desert Pea, but it is properly named in its botanical classification, after its original discoverer.

After Dampier's discoveries, something like sixty years elapsed before Cook appeared upon the scene, and it was not until his return to England that practical results seemed likely to accrue to any nation from the far-off land. I shall not recapitulate Cook's voyages; the first fitted out by the British Government was made in 1768, but Cook did not touch upon Australia's coast until two years later, when, voyaging northwards along the eastern coast, he anchored at a spot he called Botany Bay, from the brightness and abundance of the beautiful wild flowers he found growing there. Here two natives attempted to prevent his landing, although the boats were manned with forty men. The natives threw stones and spears at the invaders, but nobody was killed. At this remote and previously unvisited spot one of the crew named Forby Sutherland, who had died on board the Endeavour, was buried, his being the first white man's grave ever dug upon Australia's shore; at least the first authenticated one—for might not the remaining one of the two unfortunate convicts left by Pelsart have dug a grave for his companion who was the first to die, no man remaining to bury the survivor? Cook's route on this voyage was along the eastern coast from Cape Howe in south latitude 37° 30′ to Cape York in Torres Straits in latitude 10° 40′. He called the country New South Wales, from its fancied resemblance to that older land, and he took

possession of the whole in the name of George III. as England's territory.

Cook reported so favourably of the regions he had discovered that the British Government decided to establish a colony there ; the spot finally selected was at Port Jackson, and the settlement was called Sydney in 1788. After Cook came the Frenchman Du Fresne and his unfortunate countryman, La Pérouse. Then Vancouver, Blyth, and the French General and Admiral, D'Entre-Casteaux, who went in search of the missing La Pérouse. In 1826, Captain Dillon, an English navigator, found the stranded remains of La Pérouse's ships at two of the Charlotte Islands group. We now come to another great English navigator, Matthew Flinders, who was the first to circumnavigate Australia; to him belongs the honour of having given to this great island continent the name it now bears. In 1798, Flinders and Bass, sailing in an open boat from Sydney, discovered that Australia and Van Dieman's Land were separate; the dividing straits between were then named after Bass. In 1802, during his second voyage in the Investigator, a vessel about the size of a modern ship's launch, Flinders had with him as a midshipman John Franklin, afterwards the celebrated Arctic navigator. On his return to England, Flinders, touching at the Isle of France, was made prisoner by the French governor and detained for nearly seven years, during which time a French navigator Nicolas Baudin, with whom came Pérron and Lacepède the naturalists, and whom Flinders had met at a part of the southern coast which he called Encounter Bay in reference to that meeting, claimed

and reaped the honour and reward of a great portion of the unfortunate prisoner's work. Alas for human hopes and aspirations, this gallant sailor died before his merits could be acknowledged or rewarded, and I believe one or two of his sisters were, until very lately, living in the very poorest circumstances.

The name of Flinders is, however, held in greater veneration than any of his predecessors or successors, for no part of the Australian coast was unvisited by him. Rivers, mountain ranges, parks, districts, counties, and electoral divisions, have all been named after him; and, indeed, I may say the same of Cook; but, his work being mostly confined to the eastern coast, the more western colonies are not so intimately connected with his name, although an Australian poet has called him the Columbus of our shore.

After Flinders and Baudin came another Frenchman, De Fréycinet, bound on a tour of discovery all over the world.

Australia's next navigator was Captain, subsequently Admiral, Philip Parker King, who carried out four separate voyages of discovery, mostly upon the northern coasts. At three places upon which King favourably reported, namely Camden Harbour on the north-west coast, Port Essington in Arnhiem's Land, and Port Cockburn in Apsley Straits, between Melville and Bathurst Islands on the north coast, military and penal settlements were established, but from want of further emigration these were abandoned. King completed a great amount of marine surveying on these voyages, which occurred between the years 1813 and 1822.

Captain Wickham in the Beagle comes next; he discovered the Fitzroy River, which he found emptied itself into a gulf named King's Sound. In consequence of ill-health Captain Wickham, after but a short sojourn on these shores, resigned his command, and Lieutenant Lort Stokes, who had sailed with him in the Beagle round the rocky shores of Magellan's Straits and Tierra del Fuego, received the command from the Lords of the Admiralty. Captain Lort Stokes may be considered the last, but by no means the least, of the Australian navigators. On one occasion he was speared by natives of what he justly called Treachery Bay, near the mouth of the Victoria River in Northern Australia, discovered by him. His voyages occurred between the years 1839 and 1843. He discovered the mouths of most of the rivers that fall into the Gulf of Carpentaria, besides many harbours, bays, estuaries, and other geographical features upon the North Australian coasts.

The early navigators had to encounter much difficulty and many dangers in their task of making surveys from the rough achievements of the Dutch, down to the more finished work of Flinders, King, and Stokes. It is to be remembered that they came neither for pleasure nor for rest, but to discover the gulfs, bays, peninsulas, mountains, rivers and harbours, as well as to make acquaintance with the native races, the soils, and animal and vegetable products of the great new land, so as to diffuse the knowledge so gained for the benefit of others who might come after them. In cockle-shells of little ships what dangers did they not encounter from shipwreck on the sunken edges of coral ledges

of the new and shallow seas, how many were those who were never heard of again; how many a little exploring bark with its adventurous crew have been sunk in Australia's seas, while those poor wretches who might, in times gone by, have landed upon the inhospitable shore would certainly have been killed by the wild and savage hordes of hostile aborigines, from whom there could be no escape! With Stokes the list of those who have visited and benefited Australia by their labours from the sea must close; my only regret being that so poor a chronicler is giving an outline of their achievements. I now turn to another kind of exploration—and have to narrate deeds of even greater danger, though of a different kind, done upon Australia's face.

In giving a short account of those gallant men who have left everlasting names as explorers upon the *terra firma* and *terra incognita* of our Australian possession, I must begin with the earliest, and go back a hundred years to the arrival of Governor Phillip at Botany Bay, in 1788, with eleven ships, which have ever since been known as *The First Fleet*. I am not called upon to narrate the history of the settlement, but will only say that the Governor showed sound judgment when he removed his fleet and all his men from Botany Bay to Port Jackson, and founded the village of Sydney, which has now become the huge capital city of New South Wales. A new region was thus opened out for British labour, trade, capital, and enterprise. From the earliest days of the settlement adventurous and enterprising men, among whom was the Governor himself, who was on one occasion speared by the natives, were found willing to venture their lives in

the exploration of the country upon whose shores they had so lately landed. Wentworth, Blaxland, and Evans appear on the list as the very first explorers by land. The chief object they had in view was to surmount the difficulties which opposed their attempting to cross the Blue Mountains, and Evans was the first who accomplished this. The first efficient exploring expedition into the interior of New South Wales was conducted by John Oxley, the Surveyor-General of the colony, in 1817. His principal discovery was that some of the Australian streams ran inland, towards the interior, and he traced both the Macquarie and the Lachlan, named by him after Governor Lachlan Macquarie, until he supposed they ended in vast swamps or marshes, and thereby founded the theory that in the centre of Australia there existed a great inland sea. After Oxley came two explorers named respectively Howel and Hume, who penetrated, in 1824, from the New South Wales settlements into what is now the colony of Victoria. They discovered the upper portions of the River Murray, which they crossed somewhere in the neighbourhood of the present town of Albury. The river was then called the Hume, but it was subsequently called the Murray by Captain Charles Sturt, who heads the list of Australia's heroes with the title of The Father of Australian Exploration.

In 1827 Sturt made one of the greatest discoveries of this century—or at least one of the most useful for his countrymen—that of the River Darling, the great western artery of the river system of New South Wales, and what is now South-western Queensland. In another expedition, in 1832, Sturt

traced the Murrumbidgee River, discovered by Oxley, in boats, into what he called the Murray. This river is the same found by Howel and Hume, Sturt's name for it having been adopted. He entered the new stream, which was lined on either bank by troops of hostile natives, from whom he had many narrow escapes, and found it trended for several hundreds of miles in a west-north-west direction, confirming him in his idea of an inland sea; but at a certain point, which he called the great north-west bend, it suddenly turned south and forced its way to the sea at Encounter Bay, where Flinders met Baudin in 1803. Neither of these explorers appear to have discovered the river's mouth. On this occasion Sturt discovered the province or colony of South Australia, which in 1837 was proclaimed by the British Government, and in that colony Sturt afterwards made his home.

Sturt's third and final expedition was from the colony of South Australia into Central Australia, in 1843–1845. This was the first truly Central Australian expedition that had yet been despatched, although in 1841 Edward Eyre had attempted the same arduous enterprise. Of this I shall write anon. On his third expedition Sturt discovered the Barrier, the Grey, and the Stokes ranges, and among numerous smaller watercourses he found and named Strezletki's, Cooper's, and Eyre's Creeks. The latter remained the furthest known inland water of Australia for many years after Sturt's return. Sturt was accompanied, as surveyor and draftsman, by John McDouall Stuart, whom I shall mention in his turn. So far as my opinion, formed in my wanderings over the greater portions of the country

explored by Sturt, goes, his estimate of the regions he visited has scarcely been borne out according to the views of the present day.

Like Oxley, he was fully impressed with the notion that an inland sea did exist, and although he never met such a feature in his travels, he seems to have thought it must be only a little more remote than the parts he had reached. He was fully prepared to come upon an inland sea, for he carried a boat on a bullock waggon for hundreds of miles, and when he finally abandoned it he writes: "Here we left the boat which I had vainly hoped would have ploughed the waters of an inland sea." Several years afterwards I discovered pieces of this boat, built of New Zealand pine, in the débris of a flood about twenty miles down the watercourse where it had been left. A great portion, if not all the country, explored by that expedition is now highly-prized pastoral land, and a gold field was discovered almost in sight of a depot formed by Sturt, at a spot where he was imprisoned at a water hole for six months without moving his camp. He described the whole region as a desert, and he seems to have been haunted by the notion that he had got into and was surrounded by a wilderness the like of which no human being had ever seen or heard of before. His whole narrative is a tale of suffering and woe, and he says on his map, being at the furthest point he attained in the interior, about forty-five miles from where he had encamped on the watercourse he called Eyre's Creek, now a watering place for stock on a Queensland cattle run: "Halted at sunset in a country such as I verily believe has no parallel upon the earth's surface, and one which

was terrible in its aspect." Sturt's views are only to be accounted for by the fact that what we now call excellent sheep and cattle country appeared to him like a desert, because his comparisons were made with the best alluvial lands he had left near the coast. Explorers as a rule, great ones more particularly, are not without rivals in so honourable a field as that of discovery, although not every one who undertakes the task is fitted either by nature or art to adorn the chosen part. Sturt was rivalled by no less celebrated an individual than Major, afterwards Sir Thomas, Mitchell, a soldier of the Peninsula War, and some professional jealousy appears to have existed between them.

Major Mitchell was then the Surveyor-General of the Colony, and he entirely traversed and made known the region he appropriately named Australia Felix, now the colony of Victoria. Mitchell, like Sturt, conducted three expeditions: the first in 1831–1832, when he traced the River Darling previously discovered by Sturt, for several hundred miles, until he found it trend directly to the locality at which Sturt, in his journey down the Murray, had seen and laid down its mouth or junction with the larger river. Far up the Darling, in latitude 30° 5′, Mitchell built a stockade and formed a depot, which he called Fort Bourke; near this spot the present town of Bourke is situated and now connected by rail with Sydney, the distance being about 560 miles. Mitchell's second journey, when he visited Australia Felix, was made in 1835, and his last expedition into tropical Australia was in 1845. On this expe-

he discovered a large river running in a north-

direction, and as its channel was so large, and

its general appearance so grand, he conjectured that it would prove to be the Victoria River of Captain Lort Stokes, and that it would run on in probably increasing size, or at least in undiminished magnificence, through the 1100 or 1200 miles of country that intervened between his own and Captain Stokes's position. He therefore called it the Victoria River. Gregory subsequently discovered that Mitchell's Victoria turned south, and was one and the same watercourse called Cooper's Creek by Sturt. The upper portion of this watercourse is now known by its native name of the Barcoo, the name Victoria being ignored. Mitchell always had surveyors with him, who chained as he went every yard of the thousands of miles he explored. He was knighted for his explorations, and lived to enjoy the honour; so indeed was Sturt, but in his case it was only a mockery, for he was totally blind and almost on his death-bed when the recognition of his numerous and valuable services was so tardily conferred upon him.*

These two great travellers were followed by, or worked simultaneously, although in a totally different part of the continent, viz. the north-west coast, with Sir George Grey in 1837–1839. His labours and escapes from death by spear wounds, shipwreck, starvation, thirst, and fatigue, fill his volumes with incidents of the deepest interest. Edward Eyre, subsequently known as Governor Eyre, made an attempt to reach, in 1840–1841, Central Australia by a route north from the city of Adelaide; and as

* Dr. W. H. Browne, who accompanied Sturt to Central Australia in 1843–5 as surgeon and naturalist, is living in London; and another earlier companion of the Father of Australian Exploration, George McCleay, still survives.

Sturt imagined himself surrounded by a desert, so Eyre thought he was hemmed in by a circular or horse-shoe-shaped salt depression, which he called Lake Torrens; because, wherever he tried to push northwards, north-westwards, eastwards, or north-eastwards, he invariably came upon the shores of one of these objectionable and impassable features. As we now know, there are several of them with spaces of traversable ground between, instead of the obstacle being one continuous circle by which he supposed he was surrounded. In consequence of his inability to overcome this obstruction, Eyre gave up the attempt to penetrate into Central Australia, but pushing westerly, round the head of Flinders', Spencer's, Gulf, where now the inland seaport town of Port Augusta stands, he forced his way along the coast line from Port Lincoln to Fowler's Bay (Flinders), and thence along the perpendicular cliffs of the great Australian Bight to Albany, at King George's Sound.

This journey of Eyre's was very remarkable in more ways than one; its most extraordinary incident being the statement that his horses travelled for seven days and nights without water. I have travelled with horses in almost every part of Australia, but I know that after three days and three nights without water horses would certainly knock up, die, or become utterly useless, and it would be impossible to make them continue travelling. Another remarkable incident of his march is strange enough. One night whilst Eyre was watching the horses, there being no water at the encampment, Baxter, his only white companion, was murdered by two little black boys belonging to South Australia, who had been with Eyre for some time previously.

These little boys shot Baxter and robbed the camp of nearly all the food and ammunition it contained, and then, while Eyre was running up from the horses to where Baxter lay, decamped into the bush and were only seen the following morning, but never afterwards. One other and older boy, a native of Albany, whither Eyre was bound, now alone remained. Eyre and this boy (Wylie) now pushed on in a starving condition, living upon dead fish or anything they could find for several weeks, and never could have reached the Sound had they not, by almost a miracle, fallen in with a French whaling schooner when nearly 300 miles had yet to be traversed. The captain, who was an Englishman named Rossiter, treated them most handsomely; he took them on board for a month while their horses recruited on shore—for this was a watering place of Flinders—he then completely refitted them with every necessary before he would allow them to depart. Eyre in gratitude called the place Rossiter Bay, but it seems to have been prophetically christened previously by the ubiquitous Flinders, under the name of Lucky Bay. Nearly all the watering places visited by Eyre consisted of the drainage from great accumulations of pure white sand or hummocks, which were previously discovered by the Investigator, as Flinders himself might well have been called. The most peculiar of these features is the patch at what Flinders called the head of the Great Australian Bight; these sandhills rise to an elevation of several hundred feet, the prevailing southerly winds causing them to slope gradually from the south, while the northern face is precipitous. In moonlight I have seen these sandhills, a few miles away, shining like snowy mountains, being

refracted to an unnatural altitude by the bright moonlight. Fortunate indeed it was for Eyre that such relief was afforded him; he was unable to penetrate at all into the interior, and he brought back no information of the character and nature of the country inland. I am the only traveller who has explored that part of the interior, but of this more hereafter.

About this time Strezletki and McMillan, both from New South Wales, explored the region now the easternmost part of the colony of Victoria, which Strezletki called Gipp's Land. These two explorers were rivals, and both, it seems, claimed to have been first in that field.

Next on the list of explorers comes Ludwig Leichhardt, a surgeon, a botanist, and an eager seeker after fame in the Australian field of discovery, and whose memory all must revere. He successfully conducted an expedition from Moreton Bay to the Port Essington of King—on the northern coast—by which he made known the geographical features of a great part of what is now Queensland, the capital being Brisbane at Moreton Bay. A settlement had been established at Port Essington by the Government of New South Wales, to which colony the whole territory then belonged. At this settlement, as being the only point of relief after eighteen months of travel, Leichhardt and his exhausted party arrived. The settlement was a military and penal one, but was ultimately abandoned. It is now a cattle station in the northern territory division of South Australia, and belongs to some gentlemen in Adelaide.

Of Leichhardt's sad fate in the interior of Australia no tidings have ever been heard. On this

fatal journey, which occurred in 1848, he undertook the too gigantic task of crossing Australia from east to west, that is to say, from Moreton Bay to Swan River. Even at that period, however, the eastern interior was not all entirely unknown, as Mitchell's Victoria River or Barcoo, and the Cooper's and Eyre's Creeks of Sturt had already been discovered. The last-named watercourse lay nearly 1000 miles from the eastern coast, in latitude 25° south, and it is reasonable to suppose that to such a point Leichhardt would natuarlly direct his course—indeed in what was probably his last letter, addressed to a friend, he mentions this watercourse as a desirable point to make for upon his new attempt. But where his wanderings ended, and where the catastrophe that closed his own and his companions' lives occurred, no tongue can tell. After he finally left the furthest outlying settlements at the Mount Abundance station, he, like the lost Pleiad, was seen on earth no more. How could he have died and where? ah, where indeed? I who have wandered into and returned alive from the curious regions he attempted and died to explore, have unfortunately never come across a single record or any remains or traces of those long lost but unforgotten braves. Leichhardt originally started on his last sad venture with a party of eight, including one if not two native black boys. Owing, however, to some disagreement, the whole party returned to the starting point, but being reorganised it started again with the same number of members. There were about twenty head of bullocks broken in to carry pack-loads; this was an ordinary custom in those early days of Australian settlement. Leich-

hardt also had two horses and five or six mules: this outfit was mostly contributed by the settlers who gave, some flour, some bullocks, some money, firearms, gear, &c., and some gave sheep and goats; he had about a hundred of the latter. The packed bullocks were taken to supply the party with beef, in the meantime carrying the expedition stores. The bullocks' pack-saddles were huge, ungainly frames of wood fastened with iron-work, rings, &c.

Shortly after the expedition made a second start, two or three of the members again seceded, and returned to the settlements, while Leichhardt and his remaining band pushed farther and farther to the west.

Although the eastern half of the continent is now inhabited, though thinly, no traces of any kind, except two or three branded trees in the valley of the Cooper, have ever been found. My belief is that the only cause to be assigned for their destruction is summed up in the dread word "flood." They were so far traced into the valley of the Cooper; this creek, which has a very lengthy course, ends in Lake Eyre, one of the salt depressions which baffled that explorer. A point on the southern shore is now known as Eyre's Lookout.

The Cooper is known in times of flood to reach a width of between forty and fifty miles, the whole valley being inundated. Floods may surround a traveller while not a drop of local rain may fall, and had the members of this expedition perished in any other way, some remains of iron pack-saddle frames, horns, bones, skulls, firearms, and other articles must have been found by the native habitants who occupied the region, and would

long ago have been pointed out by the aborigines to the next comers who invaded their territories. The length of time that animals' bones might remain intact in the open air in Australia is exemplified by the fact that in 1870, John Forrest found the skull of a horse in one of Eyre's camps on the cliffs of the south coast thirty years after it was left there by Eyre. Forrest carried the skull to Adelaide. I argue, therefore, that if Leichhardt's animals and equipment had not been buried by a flood, some remains must have been since found, for it is impossible, if such things were above ground, that they could escape the lynx-like glances of Australian aboriginals, whose wonderful visual powers are unsurpassed among mankind. Everybody and everything must have been swallowed in a cataclysm and buried deep and sure in the mud and slime of a flood.

The New South Wales Government made praiseworthy efforts to rescue the missing traveller. About a year after Leichhardt visited Port Essington, the Government abandoned the settlement, and the prevailing opinion in the colony of New South Wales at that time was, that Leichhardt had not been able to reach Eyre's Creek, but had been forced up north, from his intended route, the inland-sea theory still prevailing, and that he had probably returned to the old settlement for relief. Therefore, when he had been absent two years, the Government despatched a schooner to the abandoned place. The master of the vessel saw several of the half-civilised natives, who well remembered Leichhardt's arrival there, but he had not returned. The natives promised the master to take the greatest care of him

should he again appear, but it is needless to say he was seen no more. The Government were very solicitous about him, and when he had been absent four years, Mr. Hovendon Heley was sent away with an outfit of pack-horses and six or seven men, to endeavour to trace him. This expedition seems to have wandered about for several months, and discovered, as Mr. Heley states, two marked trees branded exactly alike, viz. $_{X}\flat_{A}$, and each spot where these existed is minutely described. There was at each, a water-hole, upon the bank of which the camp was situated; at each camp a marked tree was found branded alike; at each, the frame of a tent was left standing; at each, some logs had been laid down to place the stores and keep them from damp. The two places as described appear so identical that it seems impossible to think otherwise than that Heley and his party arrived twice at the same place without knowing it. The tree or trees were found on a watercourse, or courses, near the head of the Warrego River, in Queensland. The above was all the information gained by this expedition. A subsequent search expedition was sent out in 1858, under Augustus Gregory; this I shall place in its chronological order. Kennedy, a companion of Sir Thomas Mitchell into Tropical Australia in 1845, next enters the field. He went to trace Mitchell's Victoria River or Barcoo, but finding it turned southwards and broke into many channels, he abandoned it, and on his return journey discovered the Warrego River, which may be termed the Murrumbidgee of Queensland. On a second expedition, in 1848, Kennedy started from Moreton Bay to penetrate and explore the country of the

long peninsula, which runs up northward between the Gulf of Carpentaria and the Pacific Ocean, and ends at Cape York, the northernmost point of Australia in Torres Straits. From this disastrous expedition he never returned. He was starved, ill, fatigued, hunted by remorseless aborigines for days, and finally speared to death by the natives of Cape York, when almost within sight of his goal, where a vessel was waiting to succour him and all his party. Only a black boy named Jacky Jacky was with him. After Kennedy's death Jacky buried all his papers in a hollow tree, and for a couple of days he eluded his pursuers, until, reaching the spot where his master had told him the vessel would be, he ran yelling down to the beach, followed by a crowd of murderous savages. By the luckiest chance a boat happened to be at the beach, and the officers and crew rescued the boy. The following day a party led by Jacky returned to where poor Kennedy lay, and they buried him. They obtained his books and maps from the tree where Jacky had hidden them. The narrative of this expedition is heart-rending. Of the whole number of the whites, namely seven, two only were rescued by the vessel at a place where Kennedy had formed a depot on the coast, and left four men.

With Captain Roe, a companion of King's, with whom he was speared and nearly killed by the natives of Goulburn Island, in 1820, and who afterwards became Surveyor-General of the colony of Western Australia, the list of Australia's early explorers may be said to close, although I should remark that Augustus Gregory was a West Australian explorer as early as the year 1846. Captain

Roe conducted the most extensive inland exploration of Western Australia at that day, in 1848. No works of fiction can excel, or indeed equal, in romantic and heart-stirring interest the volumes, worthy to be written in letters of gold, which record the deeds and the sufferings of these noble toilers in the dim and distant field of discovery afforded by the Australasian continent and its vast islands. It would be well if those works were read by the present generation as eagerly as the imaginary tales of adventure which, while they appeal to no real sentiment, and convey no solid information, cannot compete for a moment with those sublime records of what has been dared, done, and suffered, at the call of duty, and for the sake of human interests by men who have really lived and died. I do not say that all works of fiction are entirely without interest to the human imagination, or that writers of some of these works are not clever, for in one sense they certainly are, and that is, in only writing of horrors that never occurred, without going through the preliminary agony of a practical realisation of the dangers they so graphically describe, and from which, perhaps, they might be the very first to flee, though their heroes are made to appear nothing less than demigods. Strange as it may appear, it seems because the tales of Australian travel and self-devotion are true, that they attract but little notice, for were the narratives of the explorers *not* true we might become the most renowned novelists the world has ever known. Again, Australian geography, as explained in the works of Australian exploration, might be called an unlearned study. Let me ask how many boys out of a hundred in

Australia, or England either, have ever read Sturt or Mitchell, Eyre, Leichhardt, Grey, or Stuart. It is possible a few may have read Cook's voyages, because they appear more national, but who has read Flinders, King, or Stokes? Is it because these narratives are Australian and true that they are not worthy of attention?

Having well-nigh exhausted the list of the early explorers in Australia, it is necessary now to turn to a more modern school. I must admit that in the works of this second section, with a few exceptions, such stirring narratives as those of the older travellers cannot be found. Nevertheless, considerable interest must still attach to them, as they in reality carry on the burning torch which will not be consumed until by its light the whole of Australia stands revealed.

The modern explorers are of a different class, and perhaps of one not so high as their predecessors. By this remark I do not mean anything invidious, and if any of the moderns are correctly to be classed with the ancients, the Brothers Gregory must be spoken of next, as being the fittest to head a secondary list. Augustus Gregory was in the West Australian field of discovery in 1846. He was a great mechanical, as well as a geographical, discoverer, for to him we are indebted for our modern horses' pack-saddles in lieu of the dreadful old English sumpter horse furniture that went by that name; he also invented a new kind of compass known as Gregory's Patent, unequalled for steering on horseback, and through dense scrubs where an ordinary compass would be almost useless, while steering on camels in dense scrubs, on a given

bearing, without a Gregory would be next to impossible; it would be far easier indeed, if not absolutely necessary, to walk and lead them, which has to be done in almost all camel countries.

In 1854 Austin made a lengthened journey to the east and northwards, from the old settled places of Western Australia, and in 1856 Augustus Gregory conducted the North Australian Expedition, fitted out under the auspices of the Royal Geographical Society of London. Landing at Stokes's Treachery Bay, Gregory and his brother Frank explored Stokes's Victoria River to its sources, and found another watercourse, whose waters, running inland, somewhat revived the old theory of the inland sea. Upon tracing this river, which he named Sturt's Creek, after the father of Australian exploration, it was found to exhaust itself in a circular basin, which was named Termination Lake. Retracing the creek to where the depot was situated, the party travelled across a stretch of unknown country for some two hundred miles, and striking Leichhardt's Port Essington track on Leichhardt's Roper River, his route was followed too closely for hundreds of miles until civilisation was reached. My friend Baron von Mueller accompanied this expedition as botanist, naturalist, surgeon and physician.

Soon after his return from his northern expedition, Gregory was despatched in 1858 by the Government of New South Wales to search again for the lost explorer Leichhardt, who had then been missing ten years. This expedition resulted in little or nothing, as far as its main object was concerned, one or two trees, marked L, on the Barcoo

and lower end of the Thompson, was all it discovered; but, geographically, it settled the question of the course of the Barcoo, or Mitchell's Victoria, which Gregory followed past Kennedy's farthest point, and traced until he found it identical with Sturt's Cooper's Creek. He described it as being of enormous width in times of flood, and two of Sturt's horses, abandoned since 1845, were seen but left uncaptured. Sturt's Strezletki Creek in South Australian territory was then followed. This peculiar watercourse branches out from the Cooper and runs in a south-south-west direction. It brought Gregory safely to the northern settlements of South Australia. The fruitless search for it, however, was one of the main causes of the death of Burke and Wills in 1861. This was Gregory's final attempt; he accepted the position of Surveyor-General of Queensland, and his labours as an explorer terminated. His journals are characterised by a brevity that is not the soul of wit, he appearing to grudge to others the information he had obtained at the expense of great endurance, hardihood, knowledge, and judgment. Gregory was probably the closest observer of all the explorers, except Mitchell, and an advanced geologist.

In 1858 a new aspirant for geographical honours appeared on the field in the person of John McDouall Stuart, of South Australia, who, as before mentioned, had formerly been a member of Captain Sturt's Central Australian expedition in 1843–5 as draftsman and surveyor. Stuart's object was to cross the continent, almost in its greatest width, from south to north; and this he eventually accomplished. After three attempts he finally reached

the north coast in 1862, his rival Burke having been the first to do so. Stuart might have been first, but he seems to have under-valued his rival, and wasted time in returning and refitting when he might have performed the feat in two if not one journey; for he discovered a well-watered country the whole way, and his route is now mainly the South Australian Transcontinental Telegraph Line, though it must be remembered that Stuart had something like fifteen hundred miles of unknown country in front of him to explore, while Burke and Wills had scarcely six. Stuart also conducted some minor explorations before he undertook his greater one. He and McKinlay were South Australia's heroes, and are still venerated there accordingly. He died in England not long after the completion of his last expedition.

We now come to probably the most melancholy episode in the long history of Australian exploration, relating to the fate of Burke and Wills. The people and Government of the colony of Victoria determined to despatch an expedition to explore Central Australia, from Sturt's Eyre's Creek to the shores of the Gulf of Carpentaria at the mouth of the Albert River of Stokes's, a distance in a straight line of not more than six hundred miles; and as everything that Victoria undertakes must always be on the grandest scale, so was this. One colonist gave £1000; £4000 more was subscribed, and then the Government took the matter in hand to fit out the Victorian Exploring Expedition. Camels were specially imported from India, and everything was done to ensure success; when I say everything, I mean all but the principal thing—the leader was

the wrong man. He knew nothing of bush life or bushmanship, navigation, or any art of travel. Robert O'Hara Burke was brave, no doubt, but so hopelessly ignorant of what he was undertaking, that it would have been the greatest wonder if he had returned alive to civilisation. He was accompanied by a young man named Wills as surveyor and observer; he alone kept a diary, and from his own statements therein he was frequently more than a hundred miles out of his reckoning. That, however, did not cause his or Burke's death; what really did so was bad management. The money this expedition cost, variously estimated at from £40,000 to £60,000, was almost thrown away, for the map of the route of the expedition was incorrect and unreliable, and Wills's journal of no geographical value, except that it showed they had no difficulty with regard to water. The expedition was, however, successful in so far that Burke crossed Australia from south to north before Stuart, and was the first traveller who had done so. Burke and Wills both died upon Cooper's Creek after their return from Carpentaria upon the field of their renown. Charles Gray, one of the party, died, or was killed, a day or two before returning thither, and John King, the sole survivor, was rescued by Alfred Howitt. Burke's and Stuart's lines of travel, though both pushing from south to north, were separated by a distance of over 400 miles in longitude. These travellers, or heroes I suppose I ought to call them, were neither explorers nor bushmen, but they were brave and undaunted, and they died in the cause they had undertaken.

When it became certain in Melbourne that some

mishap must have occurred to these adventurers, Victoria, South Australia, and Queensland each sent out relief parties. South Australia sent John McKinlay, who found Gray's grave, and afterwards made a long exploration to Carpentaria, where, not finding any vessel as he expected, he had an arduous struggle to reach a Queensland cattle station near Port Dennison on the eastern coast. Queensland sent Landsborough by sea to Carpentaria, where he was landed and left to live or die as he might, though of course he had a proper equipment of horses, men, and gear. He followed up the Flinders River of Stokes, had a fine country to traverse; got on to the head of the Warrago, and finally on to the Darling River in New South Wales. He came across no traces whatever of Burke. Victoria sent a relief expedition under Walker, with several Queensland black troopers. Walker, crossing the lower Barcoo, found a tree of Leichhardt's marked L, being the most westerly known. Walker arrived at Carpentaria without seeing any traces of the missing Burke and Wills; but at the mouth of the Albert River met the master of the vessel that had conveyed Landsborough; the master had seen or heard nothing of Burke. Another expedition fitted out by Victoria, and called the Victorian Contingent Relief Expedition, was placed under the command of Alfred Howitt in 1861. At this time a friend of mine, named Conn, and I were out exploring for pastoral runs, and were in retreat upon the Darling, when we met Howitt going out. When farther north I repeatedly urged my companion to visit the Cooper, from which we were then only eighty or ninety miles away, in vain. I urged

how we might succour some, if not all, of the wanderers. Had we done so we should have found and rescued King, and we might have been in time to save Burke and Wills also; but Conn would not agree to go. It is true we were nearly starved as it was, and might have been entirely starved had we gone there, but by good fortune we met and shot a stray bullock that had wandered from the Darling, and this happy chance saved our lives. I may here remark that poor Conn and two other exploring comrades of those days, named Curlewis and McCulloch, were all subsequently, not only killed but partly eaten by the wild natives of Australia—Conn in a place near Cooktown on the Queensland coast, and Curlewis and McCulloch on the Paroo River in New South Wales in 1862. When we were together we had many very narrow escapes from death, and I have had several similar experiences since those days. Howitt on his arrival at Cooper's Creek was informed by the natives that a white man was alive with them, and thus John King, the sole survivor, was rescued.

Between 1860–65 several short expeditions were carried on in Western Australia by Frank Gregory, Lefroy, Robinson, and Hunt; while upon the eastern side of Australia, the Brothers Jardine successfully explored and took a mob of cattle through the region that proved so fatal to Kennedy and his companions in 1848. The Jardines traversed a route more westerly than Kennedy's, along the eastern shores of the Gulf of Carpentaria to Cape York.

In 1865, Duncan McIntyre, while on the Flinders River of Stokes and near the Gulf of Carpentaria,

into which it flows, was shown by a white shepherd at an out sheep station, a tree on which the letter L was cut. This no doubt was one of Landsborough's marks, or if it was really carved by Leichhardt, it was done upon his journey to Port Essington in 1844, when he crossed and encamped upon the Flinders. McIntyre reported by telegraph to Melbourne that he had found traces of Leichhardt, whereupon Baron von Mueller and a committee of ladies in Melbourne raised a fund of nearly £4000, and an expedition called "The Ladies' Leichhardt Search Expedition," whose noble object was to trace and find some records or mementoes, if not the persons, and discover the last resting-place of the unfortunate traveller and his companions, was placed under McIntyre's command. About sixty horses and sixteen camels were obtained for this attempt. The less said about this splendid but ill-starred effort the better. Indignation is a mild term to apply to our feelings towards the man who caused the ruin of so generous an undertaking. Everything that its promoters could do to ensure its success they did, and it deserved a better fate, for a brilliant issue might have been obtained, if not by the discovery of the lost explorers, at least by a geographical result, as the whole of the western half of Australia lay unexplored before it. The work, trouble, anxiety, and expense that Baron von Mueller went through to start this expedition none but the initiated can ever know. It was ruined before it even entered the field of its labours, for, like Burke's and Wills's expedition, it was unfortunately placed under the command of the wrong man. The collapse of the expedition occurred in

this wise. A certain doctor was appointed surgeon and second in command, the party consisting of about ten men, including two Afghans with the camels, and one young black boy. Their encampment was now at a water-hole in the Paroo, where Curlewis and McCulloch had been killed, in New South Wales. The previous year McIntyre had visited a water-hole in the Cooper some seventy-four or seventy-five miles from his camp on the Paroo, and now ordered the whole of his heavily-laden beasts and all the men to start for the distant spot. The few appliances they had for carrying water soon became emptied. About the middle of the third day, upon arrival at the wished-for relief, to their horror and surprise they found the water-hole was dry—by no means an unusual thing in Australian travel. The horses were already nearly dead; McIntyre, without attempting to search either up or down the channel of the watercourse, immediately ordered a retreat to the last water in the Paroo. After proceeding a few miles he left the horses and white men, seven in number, and went on ahead with the camels, the Afghans and the black boy, saying he would return with water for the others as soon as he could. His brother was one of the party left behind. Almost as soon as McIntyre's back was turned, the doctor said to the men something to the effect that they were abandoned to die of thirst, there not being a drop of water remaining, and that he knew in which packs the medical brandy was stowed, certain bags being marked to indicate them. He then added, "Boys, we must help ourselves! The Leichhardt Search Expedition is a failure; follow me, and I'll get you something to drink."

Taking a knife, he ripped open the marked bags while still on the choking horses' backs, and extracted the only six bottles there were. One white man named Barnes, to whom all honour, refused to touch the brandy, the others poured the boiling alcohol down their parched and burning throats, and a wild scene of frenzy, as described by Barnes, ensued. In the meanwhile the unfortunate pack-horses wandered away, loaded as they were, and died in thirst and agony, weighed down by their unremoved packs, none of which were ever recovered. Thus all the food supply and nearly all the carrying power of the expedition was lost; the only wonder was that none of these wretches actually died at the spot, although I heard some of them died soon after. The return of McIntyre and the camels loaded with water saved their lives at the time; but what was his chagrin and surprise to find the party just where he had left them, nearly dead, most of them delirious, with all the horses gone, when he had expected to meet them so much nearer the Paroo. In consequence of the state these men or animals were in, they had to be carried on the camels, and it was impossible to go in search of the horses; thus all was lost. This event crushed the expedition. McIntyre obtained a few more horses, pushed across to the Flinders again, became attacked with fever, and died. Thus the "Ladies' Leichhardt Search Expedition" entirely fell through. The camels were subsequently claimed by McIntyre's brother for the cost of grazing them, he having been carried by them to Carpentaria, where he selected an excellent pastoral property, became rich, and died. It was the same

doctor that got into trouble with the Queensland Government concerning the kidnapping of some islanders in the South Seas, and narrowly escaped severe, if not capital, punishment.

In 1866, Mr. Cowle conducted an expedition from Roebourne, near Nicol Bay, on the West Coast, for four or five hundred miles to the Fitzroy River, discovered by Wickham, at the bottom of King's Sound.

In 1869, a report having spread in Western Australia of the massacre of some white people by the natives somewhere to the eastwards of Champion Bay, on the west coast, the rumour was supposed to relate to Leichhardt and his party; and upon the representations of Baron von Mueller to the West Australian Government, a young surveyor named John Forrest was despatched to investigate the truth of the story. This expedition penetrated some distance to the eastwards, but could discover no traces of the lost, or indeed anything appertaining to any travellers whatever.

In 1869–70, John Forrest, accompanied by his brother Alexander, was again equipped by the West Australian Government for an exploration eastwards, with the object of endeavouring to reach the South Australian settlements by a new route inland. Forrest, however, followed Eyre's track of 1840–1, along the shores of the Great Australian Bight, and may be said to have made no exploration at all, as he did not on any occasion penetrate inland more than about thirty miles from the coast. At an old encampment Forrest found the skull of one of Eyre's horses, which had been lying there

for thirty years. This trophy he brought with him to Adelaide.

The following year, Alexander Forrest conducted an expedition to the eastwards, from the West Australian settlements; but only succeeded in pushing a few miles beyond Hunt and Lefroy's furthest point in 1864.

What I have written above is an outline of the history of discovery and exploration in Australia when I first took the field in the year 1872; and though it may not perhaps be called, as Tennyson says, one of the fairy tales of science, still it is certainly one of the long results of time. I have conducted five public expeditions and several private ones. The latter will not be recorded in these volumes, not because there were no incidents of interest, but because they were conducted, in connection with other persons, for entirely pastoral objects. Experiences of hunger, thirst, and attacks by hostile natives during those undertakings relieved them of any monotony they might otherwise display. It is, however, to my public expeditions that I shall now confine my narrative.

The wild charm and exciting desire that induce an individual to undertake the arduous tasks that lie before an explorer, and the pleasure and delight of visiting new and totally unknown places, are only whetted by his first attempt, especially when he is constrained to admit that his first attempt had not resulted in his carrying out its objects.

My first and second expeditions were conducted entirely with horses; in all my after journeys I

had the services of camels, those wonderful ships of the desert, without whose aid the travels and adventures which are subsequently recorded could not possibly have been achieved, nor should I now be alive, as Byron says, to write so poor a tale, this lowly lay of mine. In my first and second expeditions, the object I had in view was to push across the continent, from different starting points, upon the South Australian Transcontinental Telegraph Line, to the settled districts of Western Australia. My first expedition was fitted out entirely by Baron von Mueller, my brother-in-law, Mr. G. D. Gill, and myself. I was joined in this enterprise by a young gentleman, named Samuel Carmichael, whom I met in Melbourne, and who also contributed his share towards the undertaking. The farthest point reached on this journey was about 300 miles from my starting point. On my return, upon reaching the Charlotte Waters Telegraph Station, in lat. 25° 55′ and long. 135°, I met Colonel Warburton and his son, whom I had known before. These gentlemen informed me, to my great astonishment, they were about to undertake an exploring expedition to Western Australia, for two well-known capitalists of South Australia, viz. the Hon. Sir Thomas Elder and Captain Hughes. I was also informed that a South Australian Government expedition, for the same purpose, was just in advance of them, under the command of Mr. William C. Gosse. This information took me greatly by surprise, though perhaps an explorer should not admit such a feeling. I had just returned from an attempt of the same kind, beaten and disappointed. I felt if ever

I took the field again, against two such formidable rivals as were now about to attempt what I had failed in, both being supplied with camels by Sir Thomas Elder, my chances of competing with them would be small indeed, as I could only command horses, and was not then known to Sir Thomas Elder, the only gentleman in Australia who possessed camels.

The fact of two expeditions starting away simultaneously, almost as soon as I had turned my back upon civilisation, showed me at once that my attempt, I being regarded as a Victorian, had roused the people and Government of South Australia to the importance of the question which I was the first to endeavour to solve—namely, the exploration of the unknown interior, and the possibility of discovering an overland route for stock through Central Australia, to the settlements upon the western coast. This, I may remark, had been the dream of all Australian explorers from the time of Eyre and Leichhardt down to my own time. It also showed that South Australia had no desire to be beaten again,* and in her own territories, by "worthless Melbourne's puling child;" hence the two new expeditions arose. Immediately upon my return being made known by telegram to my friend Baron von Mueller, he set to work, and with unwearied exertion soon obtained a new fund from several wealthy gentlemen in the rival colony of Victoria. In consideration of the information I had afforded by my late effort, the Government of South Australia supplemented this fund by the

* Burke and Stuart.

munificent subsidy of £250, provided I *expended* the money in fresh explorations, and supplied to the Government, at the termination of my journey, a copy of the map and journal of my expedition. My poverty, and not my will, consented to accept so mean a gift. As a new, though limited fund was now placed at my disposal, I had no inclination to decline a fresh attempt, and thus my second expedition was undertaken; and such despatch was used by Baron Mueller and myself, that I was again in the field, with horses only, not many weeks later than my rivals.

On this journey I was accompanied and seconded by Mr. William Henry Tietkens. We had both been scholars at Christ's Hospital in London, though many years apart. Of the toils and adventures of my second expedition the readers of my book must form their own opinion; and although I was again unsuccessful in carrying out my object, and the expedition ended in the death of one member, and in misfortune and starvation to the others, still I have been told by a few partial friends that it was really a splendid failure. On that expedition I explored a line of nearly 700 miles of previously unknown country, in a straight line from my starting point.

During my first and second expeditions I had been fortunate in the discovery of large areas of mountain country, permanently watered and beautifully grassed, and, as spaces of enormous extent still remained to be explored, I decided to continue in the field, provided I could secure the use of camels. These volumes will contain the narratives of my

public explorations. In the preface to this work I have given an outline of the physical and colonial divisions of Australia, so that my reader may eventually follow me, albeit in imagination only, to the starting points of my journeys, and into the field of my labours also.

PREFACE.

THE Island Continent of Australia contains an area of about three millions of square miles, it being, so to say, an elliptically-shaped mass about 2500 miles in length from east to west, and 2000 from north to south. The degrees of latitude and longitude it occupies will be shown by the map accompanying these volumes.

The continent is divided into five separate colonies, whose respective capitals are situated several hundreds of miles apart. The oldest colony is New South Wales. The largest in area is Western Australia, next comes South Australia; then Queensland, New South Wales, and lastly Victoria, which, though the smallest in area, is now the first in importance among the group. It was no wonder that Mitchell, the Surveyor-General of New South Wales, designated that region "Australia Felix."

It may be strange, but it is no less true, that there is almost as great a difference between the fiscal laws and governments of the various Australian Colonies as between those of foreign States in Europe—the only thing in common being the language and the money of the British Empire. Although, however, they agree to differ amongst

themselves, there can be no doubt of the loyalty of the group, as a whole, to their parent nation. I shall go no further into this matter, as, although English enough, it is foreign to my subject. I shall treat more especially of the colony or colonies within whose boundaries my travels led me, and shall begin with South Australia, where my first expedition was conducted.

South Australia includes a vast extent of country called the Northern Territory, which must become in time a separate colony, as it extends from the 26th parallel of latitude, embracing the whole country northwards to the Indian Ocean at the 11th parallel. South Australia possesses one advantage over the other colonies, from the geographical fact of her oblong territory extending, so to speak, exactly in the middle right across the continent from the Southern to the Indian Ocean. The dimensions of the colony are in extreme length over 1800 miles, by a breadth of nearly 700, and almost through the centre of this vast region the South Australian Transcontinental Telegraph line runs from Adelaide, viâ Port Augusta, to Port Darwin.

At the time I undertook my first expedition in 1872, this extensive work had just been completed, and it may be said to divide the continent into halves, which, for the purpose I then had in view, might be termed the explored and the unexplored halves. For several years previous to my taking the field, I had desired to be the first to penetrate into this unknown region, where, for a thousand miles in a straight line, no white man's foot had ever wandered, or, if it had, its owner had

never brought it back, nor told the tale. I had ever been a delighted student of the narratives of voyages and discoveries, from Robinson Crusoe to Anson and Cook, and the exploits on land in the brilliant accounts given by Sturt, Mitchell, Eyre, Grey, Leichhardt, and Kennedy, constantly excited my imagination, as my own travels may do that of future rovers, and continually spurred me on to emulate them in the pursuit they had so eminently graced.

My object, as indeed had been Leichhardt's, was to force my way across the thousand miles that lay untrodden and unknown, between the South Australian telegraph line and the settlements upon the Swan River. What hopes I formed, what aspirations came of what might be my fortune, for I trust it will be believed that an explorer may be an imaginative as well as a practical creature, to discover in that unknown space. Here let me remark that the exploration of 1000 miles in Australia is equal to 10,000 in any other part of the earth's surface, always excepting Arctic and Antarctic travels.

There was room for snowy mountains, an inland sea, ancient river, and palmy plain, for races of new kinds of men inhabiting a new and odorous land, for fields of gold and golcondas of gems, for a new flora and a new fauna, and, above all the rest combined, there was room for me! Many well-meaning friends tried to dissuade me altogether, and endeavoured to instil into my mind that what I so ardently wished to attempt was simply deliberate suicide, and to persuade me of the truth of the poetic line, that the sad eye of experience sees

beneath youth's radiant glow, so that, like Falstaff, I was only partly consoled by the remark that they hate us youth. But in spite of their experience, and probably on account of youth's radiant glow, I was not to be deterred, however, and at last I met with Baron von Mueller, who, himself an explorer with the two Gregorys, has always had the cause of Australian exploration at heart, and he assisting, I was at length enabled to take the field. Baron Mueller and I had consulted, and it was deemed advisable that I should make a peculiar feature near the Finke river, called Chambers' Pillar, my point of departure for the west. This Pillar is situated in lat. 24° 55′ and long. 133° 50′, being 1200 miles from Melbourne in a straight line, over which distance Mr. Carmichael, a black boy, and I travelled. In the course of our travels from Melbourne to the starting point, we reached Port Augusta, a seaport though an inland town, at the head of Spencer's Gulf in South Australia, first visited by the Investigator in 1803, and where, a few miles to the eastwards, a fine bold range of mountains runs along for scores of miles and bears the gallant navigator's name. A railway line of 250 miles now connects Port Augusta with Adelaide. To this town was the first section of the Transcontinental telegraph line carried; and it was in those days the last place where I could get stores for my expedition. Various telegraph stations are erected along the line, the average distance between each being from 150 to 200 miles. There were eleven stations between Port Augusta and Port Darwin. A railway is now completed as far as the Peake Telegraph Station, about 450 miles north-westwards from Port Augusta

along the telegraph line towards Port Darwin, to which it will no doubt be carried before many years elapse.

From Port Augusta the Flinders range runs almost northerly for nearly 200 miles, throwing out numerous creeks,* through rocky pine-clad glens and gorges, these all emptying, in times of flood, into the salt lake Torrens, that peculiar depression which baffled Eyre in 1840–1. Captain Frome, the Surveyor-General of the Colony, dispelled the old horse-shoe-shaped illusion of this feature, and discovered that there were several similar features instead of one. As far as the Flinders range extends northwards, the water supply of the traveller in that region is obtained from its watercourses. The country beyond, where this long range falls off, continues an extensive open stony plateau or plain, occasionally intersected with watercourses, the course of the line of road being west of north. Most of these watercourses on the plains fall into Lake Eyre, another and more northerly salt depression. A curious limestone formation now occurs, and for some hundreds of miles the whole country is open and studded with what are called mound-springs. These are usually about fifty feet high, and ornamented on the summit with clumps of tall reeds or bulrushes. These mounds are natural artesian wells, through which the water, forced up from below, gushes out over the tops to the level ground, where it forms little water-channels at

* I must here remark that throughout this work the word creek will often occur. This is not to be considered in its English acceptation of an inlet from the sea, but, no matter how far inland, it means, in Australia a watercourse.

which sheep and cattle can water. Some of these mounds have miniature lakes on their summits, where people might bathe. The most perfect mound is called the Blanche Cup, in latitude about 29° 20′, and longitude 136° 40′.

The water of some of these springs is fresh and good, the Blanche Cup is drinkable, but the generality of them have either a mineral salt- or soda-ish taste; at first their effect is aperient, but afterwards just the opposite. The water is good enough for animals.

The Hon. Sir Thomas Elder's sheep, cattle, horse, and camel station, Beltana, is the first telegraph station from Port Augusta, the distance being 150 miles. The next is at the Strangways Springs, about 200 miles distant. This station occupies a nearly central position in this region of mound-springs; it is situated on a low rise out of the surrounding plain; all around are dozens of these peculiar mounds. The Messrs. Hogarth and Warren, who own the sheep and cattle station, have springs with a sufficiently strong flow of water to spout their wool at shearing time. The next telegraph station beyond the Strangways is the Peake, distant 100 miles. About twenty miles northward, or rather north-westward, from the Peake the mound-springs cease, and the country is watered by large pools in stony watercourses and creek beds. These pools are generally not more than twelve to fifteen miles apart. The waters in times of flood run into Lake Eyre, which receives the Cooper and all the flood waters of West and South-western Queensland, and all the drainage from the hundred watercourses of Central South Australia. The

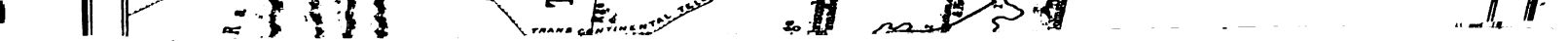
chief among the latter is the huge artery, the Finke, from the north-west.

The Charlotte Waters Station, named after Lady Charlotte Bacon, the Ianthe of Byron, which was to be my last outpost of civilisation, is a quadrangular stone building, plastered or painted white, having a corrugated iron roof, and a courtyard enclosed by the two wings of the building, having loop-holes in the walls for rifles and musketry, a cemented water-tank dug under the yard, and tall heavy iron gates to secure the place from attack by the natives.

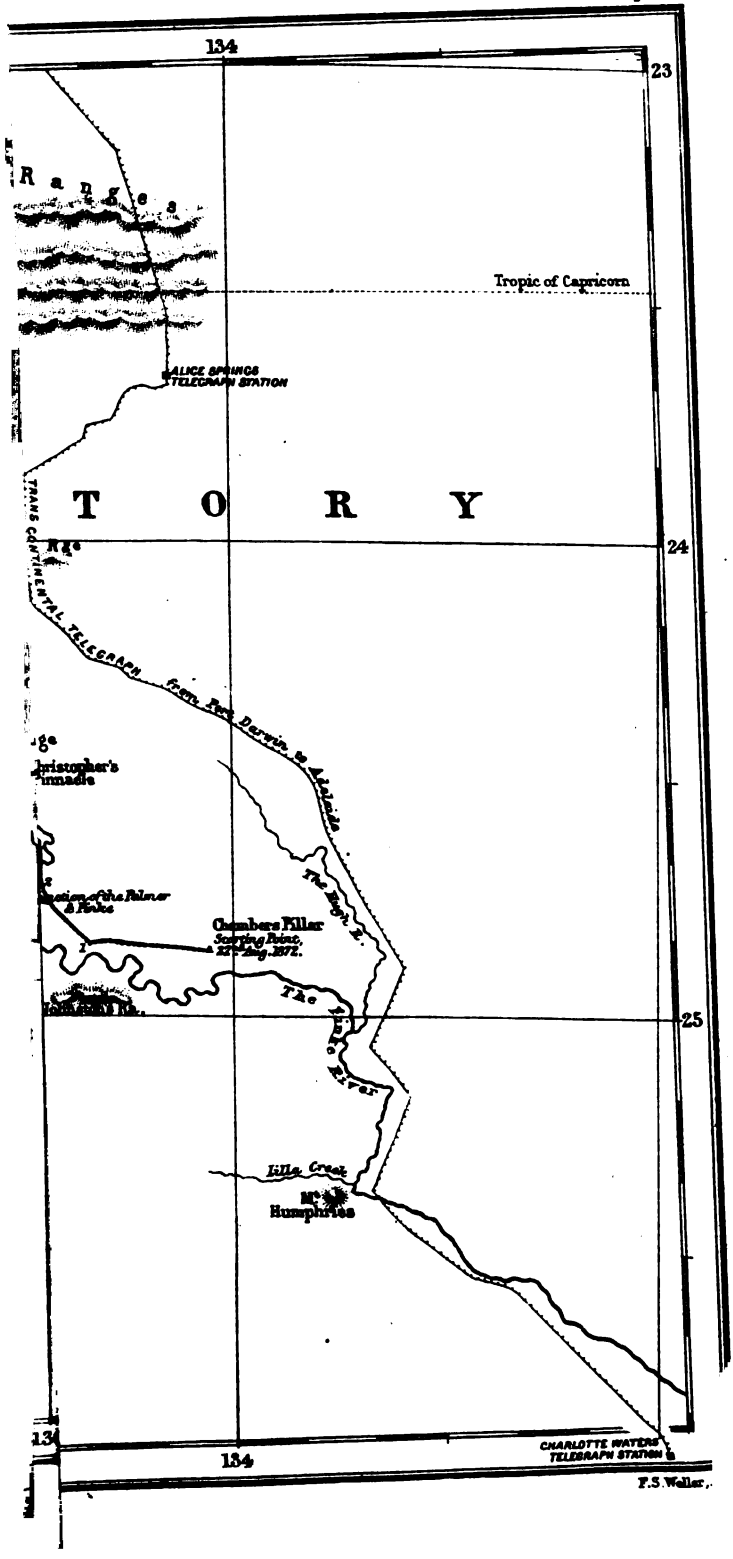
I may here relate an occurrence at a station farther up the line, built upon the same principle. One evening, while the telegraph master and staff were sitting outside the gates after the heat of the day, the natives, knowing that the stand of arms was inside the courtyard, sent some of their warriors to creep unseen inside and slam the gates, so as to prevent retreat. Then from the outside an attempt to massacre was made; several whites were speared, some were killed on the spot, others died soon afterwards, but the greatest wonder was that any at all escaped.

The establishment at the Charlotte Waters stands on a large grassy and pebbly plain, bounded on the north by a watercourse half a mile away. The natives here have always been peaceful, and never displayed any hostility to the whites. From this last station I made my way to Chambers' Pillar, which was to be my actual starting-point for the west.

BOOK I.



Map N°1.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Ranges
Tropic of Capricorn
ALICE SPRINGS TELEGRAPH STATION
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TRANS CONTINENTAL TELEGRAPH from Port Darwin to Adelaide
Christopher's Pinnacle
The Hugh R.
Chambers Pillar
Starting Point, 22nd Aug. 1872.
The Finke River
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Lilla Creek
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CHARLOTTE WATERS TELEGRAPH STATION
F.S. Weller,

AUSTRALIA TWICE TRAVERSED.

CHAPTER I.

FROM 4TH TO 30TH AUGUST, 1872.

The party—Port Augusta—The road—The Peake—Stony plateau —Telegraph station—Natives formerly hostile—A new member—Leave the Peake—Black boy deserts—Reach the Charlotte Waters Station—Natives' account of other natives —Leave last outpost—Reach the Finke—A Government party—A ride westward—End of the stony plateau—A sandhill regior –Chambers' Pillar—The Moloch horridus—Thermometer 18°—The Finke—Johnstone's range—A night alarm—Beautiful trees—Wild ducks—A tributary—High dark hill—Country rises in altitude—Very high sandhills—Quicksands—New ranges—A brush ford—New pigeon—Pointed hill—A clay pan—Christopher's Pinnacle—Chandler's Range—Another new range—Sounds of running water —First natives seen—Name of the river—A Central Australian warrior—Natives burning the country—Name a new creek—Ascend a mountain—Vivid green—Discover a glen and more mountains—Hot winds, smoke and ashes.

THE personnel of my first expedition into the interior consisted in the first instance of myself, Mr. Carmichael, and a young black boy. I intended to engage the services of another white man at the furthest outpost that I could secure one. From Port Augusta I despatched the bulk of my stores by

a team to the Peake, and made a leisurely progress up the overland road viâ Beltana, the Finniss and Strangways Springs stations. Our stores reached the Peake station before us. This station was originally called Mount Margaret, but subsequently removed to the mound-springs near the south bank of the Peake Creek; it was a cattle station formed by Mr. Phillip Levi of Adelaide. The character of the country is an open stony plateau, upon which lines of hills or ranges rise; it is intersected by numerous watercourses, all trending to Lake Eyre, and was an excellent cattle run. The South Australian Government erected the telegraph station in the immediate vicinity of the cattle station. When the cattle station was first formed in 1862 the natives were very numerous and very hostile, but at the time of my visit, ten years later, they were comparatively civilised. At the Peake we were enabled to re-shoe all our horses, for the stony road up from Port Augusta had worn out all that were put on there. I also had an extra set fitted for each horse, rolled up in calico, and marked with its name. At the Peake I engaged a young man named Alec Robinson, who, according to his account, could do everything, and had been everywhere, who knew the country I was about to explore perfectly well, and who had frequently met and camped with blacks from the west coast, and declared we could easily go over there in a few weeks. He died at one of the telegraph stations a year or two after he left me. I must say he was very good at cooking, and shoeing horses. I am able to do these useful works myself, but I do not relish either. I had brought a light little spring cart with me all the way from

Melbourne to the Peake, which I sold here, and my means of transit from thence was with pack-horses. After a rather prolonged sojourn at the Peake, where I received great hospitality from Mr. Blood, of the Telegraph Department, and from Messrs. Bagot, the owners, and Mr. Conway, the manager, we departed for the Charlotte.

My little black boy Dick, or, as he used generally to write, and call himself, Richard Giles Kew, 1872, had been at school at Kew, near Melbourne. He came to me from Queensland; he had visited Adelaide, Melbourne, and Sydney, and had been with me for nearly three years, but his fears of wild natives were terribly excited by what nearly everybody we met said to him about them. This was not surprising, as it was usually something to this effect, in bush parlance: "By G——, young feller, just you look out when you get *outside!* The wild blacks will [adjective] soon cook you. They'll kill *you* first, you know—they *will* like to cut out your kidney fat! They'll sneak on yer when yer goes out after the horses, they'll have yer and eat yer." This being the burden of the strain continually dinned into the boy's ears, made him so terrified and nervous the farther we got away from civilisation, that soon after leaving the Peake, as we were camping one night with some bullock teams returning south, the same stories having been told him over again, he at last made up his mind, and told me he wanted to go back with one of the teamsters; he had hinted about this before, and both Carmichael and Robinson seemed to be aware of his intention. Force was useless to detain him; argument was lost on him,

and entreaty I did not attempt, so in the morning we parted. I shall mention him again by-and-bye. He was a small, very handsome, light-complexioned, very intelligent, but childish boy, and was frequently mistaken for a half-caste; he was a splendid rider and tracker, and knew almost everything. He was a great wit, as one remark of his will show. In travelling up the country after he had been at school, we once saw some old deserted native gunyahs, and he said to me as we rode by, pointing to them, "Gentleman's 'ouse, villa residence, I s'pose, he's gone to his watering place for the season p'r'aps." At another time, being at a place called Crowlands, he asked me why it was called so. I replied, pointing to a crow on a tree, "Why, there's the crow," and stamping with my foot on the ground, "there's the land;" he immediately said, "Oh, now I know why my country is called Queensland, because it's land belonging to our Queen." I said, "Certainly it is;" then he said, "Well, ain't it funny? I never knew that before." In Melbourne, one day, we were leaning out of a window overlooking the people continually passing by. Dick said, "What for,—white fellow always walk about—walk about in town—when he always rides in the bush?" I said, "Oh, to do their business." "Business," he asked, "what's that?" I said, "Why, to get money, to be sure." "Money," he said; "white fellow can't pick up money in the street."

From the Peake we had only pack-horses and one little Scotch terrier dog. Dick left us at Hann's Creek, thirty miles from the Peake. On our road up, about halfway between the Peake and

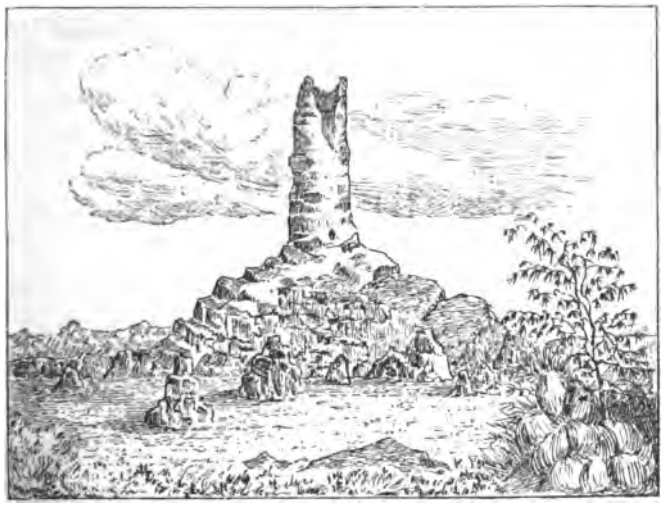
the Charlotte, we crossed and camped at a large creek which runs into the Finke, called the Alberga. Here we met a few natives, who were friendly enough, but who were known to be great thieves, having stolen things from several bullock drays, and committed other robberies; so we had to keep a sharp look out upon them and their actions. One of their number, a young man, could speak English pretty well, and could actually sing some songs. His most successful effort in that line was the song of "Jim Crow," and he performed the "turn about and wheel about and do just so" part of it until he got giddy, or pretended to be; and to get rid of him and his brethren, we gave them some flour and a smoke of tobacco, and they departed.

We arrived at the Charlotte Waters station on the 4th of August, 1872; this was actually my last outpost of civilisation. My companion, Mr. Carmichael, and I were most kindly welcomed by Mr. Johnstone, the officer in charge of this depot, and by Mr. Chandler, a gentleman belonging to a telegraph station farther up the line. In consequence of their kindness, our stay was lengthened to a week. My horses were all the better for the short respite, for they were by no means in good fettle; but the country having been visited by rains, grass was abundant, and the animals improving. The party consisted only of myself, Carmichael, and Robinson; I could not now obtain another man to make up our original number of four. We still had the little dog. During our stay at the Charlotte I inquired of a number of the natives for information concerning the region beyond, to the west and north-west. They often used the words "Larapinta and plenty

black fellow." Of the country to the west they seemed to know more, but it was very difficult to get positive statements. The gist of their information was that there were large waters, high mountains, and plenty, plenty, wild black fellow; they said the wild blacks were very big and fat, and had hair growing, as some said, all down their backs; while others asserted that the hair grew all over their bodies, and that they eat pickaninnies, and sometimes came eastward and killed any of the members of the Charlotte tribe that they could find, and carried off all the women they could catch. On the 12th we departed, and my intended starting point being Chambers' Pillar, upon the Finke River, I proceeded up the telegraph road as far as the crossing place of the above-named watercourse, which was sixty miles by the road.

In the evening of the day we encamped there, a Government party, under the charge of Mr. McMinn, surveyor, and accompanied by Mr. Harley Bacon, a son of Lady Charlotte Bacon, arrived from the north, and we had their company at the camp. Close to this crossing-place a large tributary joins the Finke near the foot of Mount Humphries. On the following day Mr. McMinn, Mr. Bacon, and I rode up its channel, and at about twelve miles we found a water-hole and returned. The country consisted chiefly of open sandhills well grassed. I mentioned previously that from Port Augusta, northwards and north-westwards, the whole region consists of an open stony plateau, upon which mountain ranges stand at various distances; through and from these, a number of watercourses run, and, on a section of this plateau, nearly 200 miles in extent,

the curious mound-springs exist. This formation, mostly of limestone, ceases at, or immediately before reaching, the Finke, and then a formation of heavy red sandhills begins. Next day our friends departed for the Charlotte, after making me several presents. From Mr. McMinn I obtained the course and distance of the pillar from our camp, and travelling on the course given, we crossed the Finke three times, as it wound about so snake-like across the country. On the 22nd we encamped upon it, having the pillar in full view.



CHAMBERS' PILLAR.

The appearance of this feature I should imagine to be unique. For a detailed account of it my reader must consult Stuart's report. Approaching the pillar from the south, the traveller must pass over a series of red sandhills, covered with some scrubs, and clothed near the ground with that abominable vegetable production, the so-

called spinifex or porcupine grass—botanically, the *Triodia*, or *Festuca irritans*. The timber on the sandhills near the pillar is nearly all mulga, a very hard acacia, though a few tall and well-grown casuarinas—of a kind that is new to me, viz., the *C. Decaisneana*—are occasionally met.* On our route Mr. Carmichael brought to me a most peculiar little lizard, a true native of the soil; its colour was a yellowish-green; it was armed, or ornamented, at points and joints, with spines, in a row along its back, sides, and legs; these were curved, and almost sharp; on the back of its neck was a thick knotty lump, with a spine at each side, by which I lifted it; its tail was armed with spines to the point, and was of proportional length to its body. The lizard was about eight inches in length. Naturalists have christened this harmless little chameleon the Moloch horridus. I put the little

THE MOLOCH HORRIDUS.

creature in a pouch, and intended to preserve it, but it managed to crawl out of its receptacle, and dropped again to its native sand. I had one of these lizards, as a pet, for months in Melbourne. It was finally trodden on and died. It used to eat sugar.

* These trees have almost a palm-like appearance, and look like huge mops; but they grow in the driest regions.

By this time we were close to the pillar: its outline was most imposing. Upon reaching it, I found it to be a columnar structure, standing upon a pedestal, which is perhaps eighty feet high, and composed of loose white sandstone, having vast numbers of large blocks lying about in all directions. From the centre of the pedestal rises the pillar, composed also of the same kind of rock; at its top, and for twenty to thirty feet from its summit, the colour of the stone is red. The column itself must be seventy or eighty feet above the pedestal. It is split at the top into two points. There it stands, a vast monument of the geological periods that must have elapsed since the mountain ridge, of which it was formerly a part, was washed by the action of old Ocean's waves into mere sandhills at its feet. The stone is so friable that names can be cut in it to almost any depth with a pocket-knife: so loose, indeed, is it, that one almost feels alarmed lest it should fall while he is scratching at its base. In a small orifice or chamber of the pillar I discovered an opossum asleep, the first I had seen in this part of the country. We turned our backs upon this peculiar monument, and left it in its loneliness and its grandeur—"clothed in white sandstone, mystic, wonderful!"

From hence we travelled nearly west, and in seventeen miles came to some very high sandhills, at whose feet the river swept. We followed round them to a convenient spot, and one where our horses could water without bogging. The bed of the Finke is the most boggy creek-channel I have ever met. As we had travelled several miles in the morning to the pillar, and

camped eighteen beyond it, it was late in the afternoon when we encamped. The country we passed over was mostly scrubby sandhills, covered with porcupine grass. Where we struck the channel there was a long hole of brine. There was plenty of good grass on the river flat; and we got some tolerably good water where we fixed our camp. When we had finished our evening meal, the shades of night descended upon us, in this our first bivouac in the unknown interior. By observations of the bright stars Vega and Altair, I found my latitude was 24° 52′ 15″; the night was excessively cold, and by daylight next morning the thermometer had fallen to 18°. Our blankets and packs were covered with a thick coating of ice; and tea left in our pannikins overnight had become solid cakes.

The country here being soft and sandy, we unshod all the horses and carried the shoes. So far as I could discern with the glasses, the river channel came from the west, but I decided to go north-west, as I was sure it would turn more northerly in time; and I dreaded being caught in a long bend, and having to turn back many miles, or chance the loss of some or all the horses in a boggy crossing. To the south a line of hills appeared, where the natives were burning the spinifex in all directions. These hills had the appearance of red sandstone; and they had a series of ancient ocean watermarks along their northern face, traceable for miles. This I called Johnstone's Range. As another night approached, we could see, to the north, the brilliant flames of large grass fires, which had only recently been started by some prowling sons of the soil, upon their becoming aware of our presence in their

domain. The nights now were usually very cold. One night some wild man or beast must have been prowling around our camp, for my little dog Monkey exhibited signs of great perturbation for several hours. We kept awake, listening for some sounds that might give us an idea of the intruders; and being sure that we heard the tones of human voices, we got our rifles in readiness. The little dog barked still more furiously, but the sounds departed: we heard them no more: and the rest of the night passed in silence—in silence and beautiful rest.

We had not yet even sighted the Finke, upon my north-west course; but I determined to continue, and was rewarded by coming suddenly upon it under the foot of high sandhills. Its course now was a good deal to the north. The horses being heavily packed, and the spinifex distressing them so much, we found a convenient spot where the animals could water without bogging, and camped. Hard by, were some clumps of the fine-looking casuarinas; they grow to a height of twenty to twenty-five feet of barrel without a branch, and then spread out to a fine umbrella top; they flourish out of pure red sand. The large sheet of water at the camp had wild ducks on it: some of these we shot. The day was very agreeable, with cool breezes from the north-west. A tributary joins the Finke here from the west, and a high dark hill forms its southern embankment: the western horizon is bounded by broken lines of hills, of no great elevation. As we ascend the river, the country gradually rises, and we are here about 250 feet above the level of the Charlotte Waters Station.

Finding the river now trended not only northerly, but even east of north, we had to go in that direction, passing over some very high sandhills, where we met the Finke at almost right angles. Although the country was quite open, it was impossible to see the river channel, even though fringed with rows of splendid gum-trees, for any distance, as it became hidden by the high sandhills. I was very reluctant to cross, on account of the frightfully boggy bed of the creek, but, rather than travel several miles roundabout, I decided to try it. We got over, certainly, but to see one's horses and loads sinking bodily in a mass of quaking quicksand is by no means an agreeable sight, and it was only by urging the animals on with stock-whips, to prevent them delaying, that we accomplished the crossing without loss. Our riding horses got the worst of it, as the bed was so fearfully ploughed up by the pack-horses ahead of them. The whole bed of this peculiar creek appears to be a quicksand, and when I say it was nearly a quarter of a mile wide, its formidable nature will be understood. Here a stream of slightly brackish water was trickling down the bed in a much narrower channel, however, than its whole width; and where the water appears upon the surface, there the bog is most to be apprehended. Sometimes it runs under one bank, sometimes under the opposite, and again, at other places the water occupies the mid-channel. A horse may walk upon apparently firm sand towards the stream, when, without a second's warning, horse and rider may be engulfed in quicksand; but in other places, where it is firmer, it will quake for yards all round, and thus give some slight warning.

Crossing safely, and now having the river on my right hand, we continued our journey, sighting a continuous range of hills to the north, which ran east and west, and with the glasses I could see the river trending towards them. I changed my course for a conspicuous hill in this new line, which brought me to the river again at right angles; and, having so successfully crossed in the morning, I decided to try it again. We descended to the bank, and after great trouble found a spot firm enough and large enough to allow all the horses to stand upon it at one time, but we could not find a place where they could climb the opposite bank, for under it was a long reach of water, and a quagmire extending for more than a mile on either side. Two of our riding-horses were badly bogged in trying to find a get-away: finally, we had to cut boughs and sticks, and bridge the the place over with them. Thus we eventually got the horses over one by one without accident or loss. In four miles we touched on a bend of the river again, but had no occasion to recross, as it was not in our road. This day, having wasted so much time in the crossings, we travelled only fifteen miles. The horizon from this camp was bounded from south-west, and west, round by north, to north-west, by ranges; which I was not sorry to perceive. Those to the west, and south-west, were the highest and most pointed. It appears that the Finke must come under or through some of those to the north-west. To-day I observed a most beautiful pigeon, quite new to me; it was of a dark-brown colour, mottled under the throat and on the breast; it had also a high top-knot. It is considerably smaller

than the Sturt pigeon of his Central Australian expedition.

It was now the 28th of August, and the temperature of the atmosphere was getting warmer. Journeying now again about north-west, we reached a peculiar pointed hill with the Finke at its foot. We passed over the usual red sandhill country covered with the porcupine grass, characteristic of the Finke country, and saw a shallow sheet of yellow rain water in a large clay pan, which is quite an unusual feature in this part of the world, clay being so conspicuous by its absence. The hill, when we reached it, assumed the appearance of a high pinnacle; broken fragments of rock upon its sides and summit showed it too rough and precipitous to climb with any degree of pleasure. I named it Christopher's Pinnacle, after a namesake of mine. The range behind it I named Chandler's Range. For some miles we had seen very little porcupine grass, but here we came into it again, to the manifest disgust of our horses. We had now a line of hills on our right, with the river on our left hand, and in six or seven miles came to the west end of Chandler's Range, and could see to the north and north-west another, and much higher line running parallel to Chandler's Range, but extending to the west as far as I could see. The country hereabouts has been nearly all burnt by the natives, and the horses endeavour to pick roads where the dreaded triodia has been destroyed.

We passed a few clumps of casuarinas and a few stunted trees with broad, poplar-like leaves. Travelling for twelve miles on this bearing, we struck the Finke again, running nearly north and south. Here

the river had a stony bed with a fine reach of water in it; so to-night at least our anxiety as regards the horses bogging is at an end. The stream purling over its stony floor produces a most agreeable sound, such as I have not heard for many a day. Here I might say, "Brightly the brook through the green leaflets, giddy with joyousness, dances along."

Soon after we had unpacked and let go our horses, we were accosted by a native on the opposite side of the creek. Our little dog became furious; then two natives appeared. We made an attempt at a long conversation, but signally failed, for neither of us knew many of the words the other was saying. The only bit of information I obtained from them was their name for the river—as they kept continually pointing to it and repeating the word Larapinta. This word, among the Peake and Charlotte natives, means a snake, and from the continual serpentine windings of this peculiar and only Central Australian river, no doubt the name is derived. I shot a hawk for them, and they departed. The weather to-day was fine, with agreeable cool breezes; the sky has become rather overcast; the flies are very numerous and troublesome; and it seems probable we may have a slight fall of rain before long.

A few drops of rain fell during the night, which made me regret that I had not had our tarpaulins erected, though no more fell. In the morning there was sultriness in the air though the sky was clear; the thermometer stood at 52°, and at sunrise a smoky haze pervaded the whole sky. Whilst we were packing up the horses this morning, the same

two natives whom we saw last night, again made their appearance, bringing with them a third, who was painted, feathered, greased, and red-ochred, in, as they doubtless thought, the most alarming manner. I had just mounted my horse, and rode towards them, thinking to get some more information from the warrior as to the course of the creek, &c., but when they saw the horse approaching they scampered off, and the bedizened warrior projected himself into the friendly branches of the nearest tree with the most astonishing velocity. Perceiving that it was useless to try to approach them, without actually running them to earth, we left them; and crossing the river easily over its stony bed, we continued north-west towards a mountain in the ranges that traversed the horizon in that direction. The river appeared to come from the same spot. A breeze from the north-west caused the dust raised by the pack-horses, which we drove in a mob before us, travelling upon the loose soil where the spinifex had all been lately burnt, to blow directly in our faces. At five miles we struck on a bend of the river, and we saw great volumes of smoke from burning grass and triodia rising in all directions. The natives find it easier to catch game when the ground is bare, or covered only with a short vegetation, than when it is clothed with thick coarse grasses or pungent shrubs. A tributary from the north, or east of north, joined the Finke on this course, but it was destitute of water at the junction. Soon now the river swept round to the westward, along the foot of the hills we were approaching. Here a tributary from the west joined, having a slender stream of water running along its bed. It

was exceedingly boggy, and we had to pass up along it for over two miles before we could find a place to cross to enable us to reach the main stream, now to the north of us. I called this McMinn's Creek.

On reaching the Finke we encamped. In the evening I ascended a mountain to the north-westward of us. It was very rough, stony, and precipitous, and composed of red sandstone; its summit was some 800 feet above our camp. It had little other vegetation upon it than huge plots of triodia, of the most beautiful and vivid green, and set with the most formidable spines. Whenever one moves, these spines enter the clothes in all directions, making it quite a torture to walk about among them. From here I could see that the Finke turned up towards these hills through a glen, in a north-westerly direction. Other mountains appeared to the north and north-west; indeed this seemed to be a range of mountains of great length and breadth. To the eastwards it may stretch to the telegraph line, and to the west as far as the eye could see. The sun had gone down before I had finished taking bearings. Our road to-morrow will be up through the glen from which the river issues. All day a most objectionable hot wind has been blowing, and clouds of smoke and ashes from the fires, and masses of dust from the loose soil ploughed up by the horses in front of us, and blowing in our faces, made it one of the most disagreeable days I ever passed. At night, however, a contrast obtained—the wind dropped, and a calm, clear, and beautiful night succeeded to the hot, smoky, and dusty day. Vega alone gave me my latitude here, close to the

mouth of the glen, as 24° 25′ 12″; and, though the day had been so hot and disagreeable, the night proved cold and chilly, the thermometer falling to 24° by daylight, but there was no frost, or even any dew to freeze.

CHAPTER II.

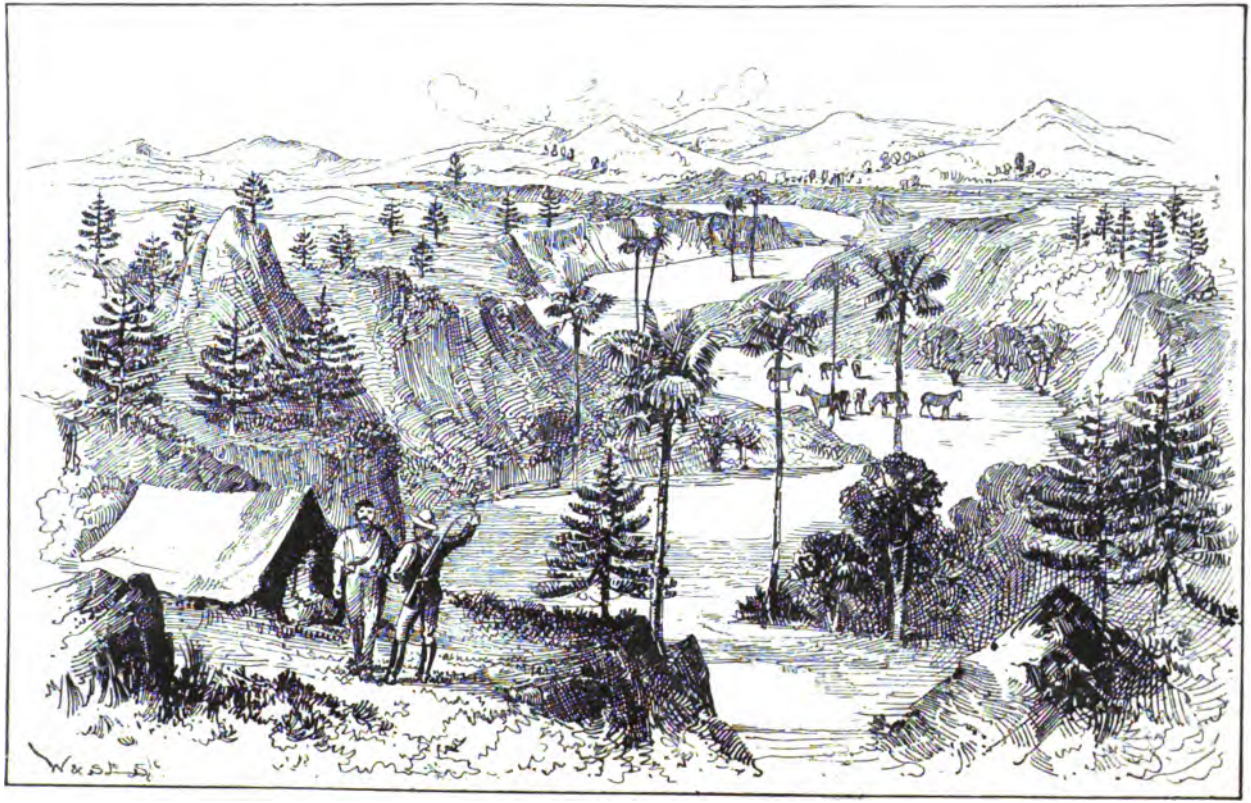
FROM 30TH AUGUST TO 6TH SEPTEMBER, 1872.

Milk thistle—In the glen—A serpentine and rocky road—Name a new creek—Grotesque hills—Caves and caverns—Cypress pines—More natives—Astonish them—Agreeable scenery—Sentinel stars—Pelicans—Wild and picturesque scenery—More natives—Palm-trees—A junction in the glen—High ranges to the north—Palms and flowers—The Glen of Palms—Slight rain—Rain at night—Plant various seeds—End of the glen—Its length—Krichauff Range—The northern range—Level country between—A gorge—A flooded channel—Cross a western tributary—Wild ducks—Ramble among the mountains—Their altitude—A splendid panorama—Progress stopped by a torrent and impassable gorge.

OUR start this morning was late, some of our horses having wandered in the night, the feed at the camp not being very good; indeed the only green herb met by us, for some considerable distance, has been the sow or milk thistle (*Sonchus oleraceus*), which grows to a considerable height. Of this the horses are extremely fond; it is also very fattening. Entering the mouth of the glen, in two miles we found ourselves fairly enclosed by the hills, which shut in the river on both sides. We had to follow the windings of the serpentine channel; the mountains occasionally forming steep precipices overhanging the stream, first upon one side, then upon the other. We often had to lead the horses separately over huge ledges

of rock, and frequently had to cut saplings and lever them out of the way, continually crossing and recrossing the river. On camping in the glen we had only made good eleven miles, though to accomplish this we had travelled more than double the distance. At the camp a branch creek came out of the mountains to the westwards, which I named Phillip's Creek. The whole of this line of ranges is composed of red sandstone in large or small fragments, piled up into the most grotesque shapes. Here and there caves and caverns exist in the sides of the hills.

A few trees of the cypress pine (*Callitris*) were seen upon the summits of the higher mounts. The hills and country generally inside this glen are more fertile than those outside, having real grass instead of triodia upon their sides. I saw two or three natives just before camping; they kept upon the opposite side of the water, according to a slight weakness of theirs. Just at the time I saw them, I had my eye on some ducks upon the water in the river bed, I therefore determined to kill two birds with one stone; that is to say, to shoot the ducks and astonish the natives at the same time. I got behind a tree, the natives I could see were watching me most intently the while, and fired. Two ducks only were shot, the remainder of the birds and the natives, apparently, flying away together. Our travels to-day were very agreeable; the day was fine, the breezes cool, and the scenery continually changing, the river taking the most sinuous windings imaginable; the bed of it, as might be expected in such a glen, is rough and stony, and the old fear of the horses bogging has departed from us. By



VIEW IN THE GLEN OF PALMS. [*Page 23, Vol. I.*

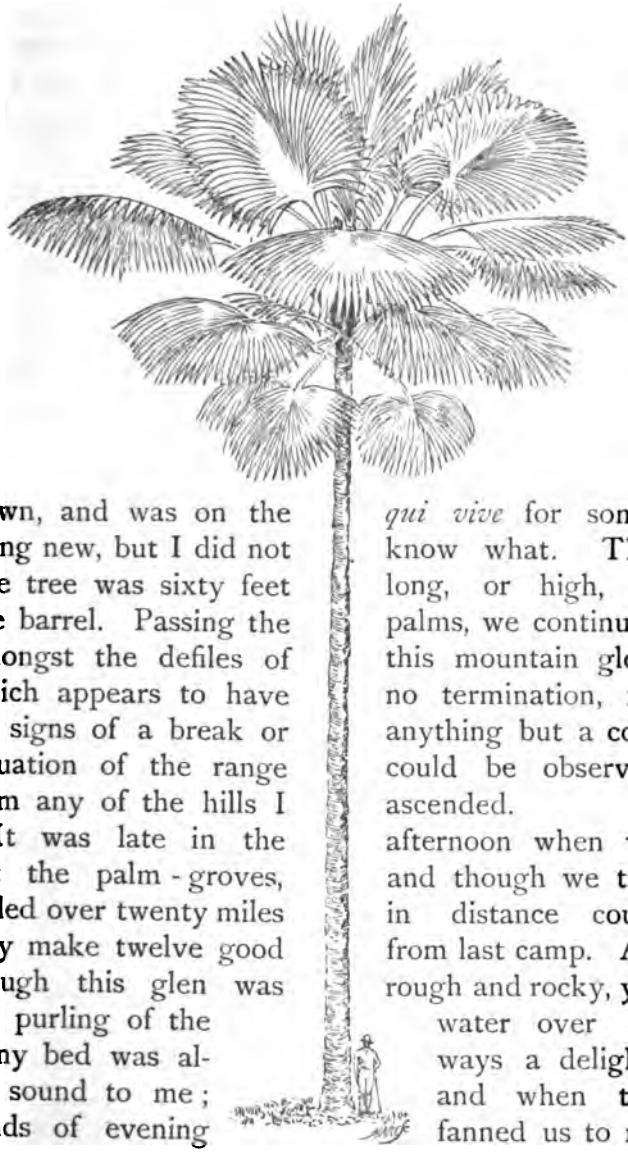
bearings back upon hills at the mouth of the glen I found our course was nearly north 23° west. The night was clear and cold; the stars, those sentinels of the sky, appeared intensely bright. To the explorer they must ever be objects of admiration and love, as to them he is indebted for his guidance through the untrodden wilderness he is traversing. "And sweet it is to watch them in the evening skies weeping dew from their gentle eyes." Several hundred pelicans, those antediluvian birds, made their appearance upon the water early this morning, but seeing us they flew away before a shot could be fired. These birds came from the north-west; indeed, all the aquatic birds that I have seen upon the wing, come and go in that direction. I am in hopes of getting through this glen to-day, for however wild and picturesque the scenery, it is very difficult and bad travelling for the unshod horses; consequently it is difficult to get them along. There was no other road to follow than the windings of the river bed through this mountain-bound glen, in the same manner as yesterday. Soon after starting, I observed several natives ahead of us; immediately upon their discovering us they raised a great outcry, which to our ears did not exactly resemble the agreeable vibration of a melodious sound, it being quite the opposite. Then of course signal fires were made which raised great volumes of smoke, the natives thinking perhaps to intimidate and prevent us from farther advance. Neither of these effects was produced, so their next idea was to depart themselves, and they ran ahead of us up the glen. I also saw another lot of some twenty or thirty scudding away over the rocks and stony

hills—these were probably the women and children. Passing their last night's encampment, we saw that they had left all their valuables behind them—these we left untouched. One old gentleman sought the security of a shield of rock, where this villain upon earth and fiend in upper air most vehemently apostrophised us, and probably ordered us away out of his territory. To the command in itself we paid little heed, but as it fell in with our own ideas, we endeavoured to carry it out as fast as possible. This, I trust, was satisfactory, as I always like to do what pleases others, especially when it coincides with my own views.

> "It's a very fine thing, and delightful to see
> Inclination and duty both join and agree."

Some of the natives near him threatened us with their spears, and waved knobbed sticks at us, but we departed without any harm being done on either side.

Soon after leaving the natives, we had the gratification of discovering a magnificent specimen of the Fan palm, a species of *Livistona*, allied to one in the south of Arnhiem's Land, and now distinguished as the *Maria Palm* (Baron von Mueller), growing in the channel of the watercourse with flood drifts against its stem. Its dark-hued, dome-shaped frondage contrasted strangely with the paler green foliage of the eucalyptus trees that surrounded it. It was a perfectly new botanical feature to me, nor did I expect to meet it in this latitude. "But there's a wonderful power in latitude, it alters a man's moral relations and attitude." I had noticed some strange vegetation in the dry flood drifts lower



THE PALM-TREE FOUND IN THE GLEN OF PALMS.

down, and was on the *qui vive* for some-
thing new, but I did not know what. This
fine tree was sixty feet long, or high, in
the barrel. Passing the palms, we continued
amongst the defiles of this mountain glen,
which appears to have no termination, for
no signs of a break or anything but a con-
tinuation of the range could be observed
from any of the hills I ascended.

It was late in the afternoon when we
left the palm-groves, and though we tra-
velled over twenty miles in distance could
only make twelve good from last camp. Al-
though this glen was rough and rocky, yet
the purling of the water over its
stony bed was al- ways a delight-
ful sound to me; and when the
winds of evening fanned us to re-
pose, it seemed as though some kindly spirit whis-

pered that it would guard us while we slept, and when the sun declined the swift stream echoed on.

The following day being Sunday, the 1st September, I made it a day of rest, for the horses at least, whose feet were getting sore from continued travel over rocks and boulders of stone. I made an excursion into the hills, to endeavour to discover when and where this apparently interminable glen ceased, for with all its grandeur, picturesqueness, and variety, it was such a difficult road for the horses, that I was getting heartily tired of it; besides this, I feared this range might be its actual source, and that I should find myself eventually blocked and stopped by impassable water-choked gorges, and that I should finally have to retreat to where I first entered it. I walked and climbed over several hills, cliffs, and precipices, of red sandstone, to the west of the camp, and at length reached the summit of a pine-clad mountain considerably higher than any other near it. Its elevation was over 1000 feet above the level of the surrounding country. From it I obtained a view to all points of the compass except the west, and could descry mountains, from the north-east round by north to the north-north-west, at which point a very high and pointed mount showed its top above the others in its neighbourhood, over fifty miles away. To the north and east of north a massive chain, with many dome-shaped summits, was visible. Below, towards the camp, I could see the channel of the river where it forced its way under the perpendicular sides of the hills, and at a spot not far above the camp it seemed split in two, or rather was joined by another water-course from the northwards. From the junction

the course of the main stream was more directly from the west. Along the course of the tributary at about ten miles I could see an apparently open piece of country, and with the glasses there appeared a sheet of water upon it. I was glad to find a break in the chain, though it was not on the line I should travel. Returning to my companions, I imparted to them the result of my observations.

On Monday, the 2nd, there was a heaviness in the atmosphere that felt like approaching rain. The thermometer during the night had not fallen below 60°, over 40° higher than at our first night's camp from the pillar. To-day, again following the mazy windings of the glen, we passed the northern tributary noticed yesterday, and continued on over rocks, under precipices, crossing and re-crossing the channel, and turning to all points of the compass, so that nearly three miles had to be travelled to make good one. Clumps of the beautiful palms were occasionally passed, growing mostly in the river bed, and where they appear, they considerably enliven the scenery. During my sojourn in this glen, and indeed from first starting, I collected a great number of most beautiful flowers, which grow in profusion in this otherwise desolate glen. I was literally surrounded by fair flowers of every changing hue. Why Nature should scatter such floral gems upon such a stony sterile region it is difficult to understand, but such a variety of lovely flowers of every kind and colour I had never met with previously. Nature at times, indeed, delights in contrasts, for here exists a land "where bright flowers are all scentless, and songless bright birds." The flowers alone would have induced me to name this Glen Flora; but having found in

it also so many of the stately palm trees, I have called it the Glen of Palms. Peculiar indeed, and romantic too, is this new-found watery glen, enclosed by rocky walls, "Where dial-like, to portion time, the palm-tree's shadow falls."

While we were travelling to-day, a few slight showers fell, giving us warning in their way that heavier falls might come. We were most anxious to reach the northern mouth of the glen if possible before night, so heartily tired were we of so continuously serpentine a track; we therefore kept pushing on. We saw several natives to-day, but they invariably fled to the fastnesses of their mountain homes, they raised great volumes of smoke, and their strident vociferations caused a dull and buzzing sound even when out of ear-shot. The pattering of the rain-drops became heavier, yet we kept on, hoping at every turn to see an opening which would free us from our prison-house; but night and heavier rain together came, and we were compelled to remain another night in the palmy glen. I found a small sloping, sandy, firm piece of ground, probably the only one in the glen, a little off from the creek, having some blood-wood or red gum-trees growing upon it, and above the reach of any flood-mark—for it is necessary to be careful in selecting a site on a watercourse, as, otherwise, in a single instant everything might be swept to destruction. We were fortunate indeed to find such a refuge, as it was large enough for the horses to graze on, and there was some good feed upon it. By the time we had our tarpaulins fixed, and everything under cover, the rain fell in earnest. The tributary passed this morning was named Ellery's

Creek. The actual distance we travelled to-day was eighteen miles; to accomplish this we travelled from morn till night. Although the rain continued at intervals all night, no great quantity fell. In the morning the heavens were clear towards the south, but to the north dense nimbus clouds covered the hills and darkened the sky. Not removing the camp, I took another ramble into the hills to the east of the camp, and from the first rise I saw what I was most anxious to see, that is to say, the end, or rather the beginning of the glen, which occurred at about two miles beyond our camp. Beyond that the Finke came winding from the north-west, but clouds obscured a distant view. It appeared that rain must still be falling north of us, and we had to seek the shelter of our canvas home. At midday the whole sky became overclouded, rain came slowly down, and when the night again descended heavier still was then the fall. At an hour after daylight on the morrow the greatest volume fell, and continued for several hours. At midday it held up sufficiently to enable me to plant some seeds of various trees, plants, vegetables, &c., given me specially by Baron von Mueller. Among these were blue gum (tree), cucumbers, melons, culinary vegetables, white maize, prairie grass, sorghum, rye, and wattle-tree seeds, which I soaked before planting. Although the rain lasted thirty-six hours in all, only about an inch fell. It was with great pleasure that at last, on the 5th, we left the glen behind us, and in a couple of miles debouched upon a plain, which ran up to the foot of this line of ranges. The horses seemed to be especially pleased to be on soft ground again. The length of this

glen is considerable, as it occupies 31′ of latitude. The main bearing of it is nearly north 25° west; it is the longest feature of the kind I ever traversed, being over forty miles straight, and over a hundred miles of actual travelling, and it appeared the only pass through the range, which I named the Krichauff. To the north a higher and more imposing chain existed, apparently about twenty miles away. This northern chain must be the western portion of the McDonnell Range. The river now is broader than in the glen; its bed, however, is stony, and not boggy, the country level, sandy, and thinly timbered, mostly all the vegetation being burnt by grass fires set alight by the natives.

Travelling now upon the right bank of this stream, we cut off most of the bends, which, however, were by no means so extensive or so serpentine as in the glen or on the south side of it. Keeping near the river bank, we met but little porcupine grass for the most part of the day's stage, but there was abundance of it further off. The river took us to the foot of the big mountains, and we camped about a mile below a gorge through which it issues. As we neared the new hills, we became aware that the late rains were raising the waters of the river. At six miles before camping we crossed a tributary joining the Finke at right angles from the west, where there are some ranges in that direction; a slight stream was running down the bed. My next anxiety is to discover where this river comes from, or whether its sources are to be found in this chain. The day was delightfully fine and cool, the breezes seemed to vibrate the echo of an air which Music, sleeping at

her instrument, had ceased to play. The ground is soft after the late rains. I said we camped a mile below a gorge; at night I found my position to be in latitude 23° 40′, and longitude 132° 31′, the variation 3° east. We shot a few ducks, which were very fat and good. This morning I took a walk into the hills to discover the best route to take next. The high ranges north seem to be formed of three separate lines, all running east and west; the most northerly being the highest, rising over 2000 feet above the level of the surrounding country, and, according to my barometrical and boiling-point measurements, I found that at the Charlotte Waters I was 900 feet above the sea. From that point up to the foot of these mountains the country had steadily risen, as we traced the Finke, over 1000 feet, so that the highest points of that range are over 4000 feet above sea level; the most southerly of the three lines is composed of sandstone, the middle and highest tiers I think change to granite. I climbed for several hours over masses of hills, but always found one just a little farther on to shut out the view. At length I reached the summit of a high round mountain in the middle tier, and a most varied and splendid panorama was spread before me, or I was spread before it.

To the north was the main chain, composed for the most part of individual high mounts, there being a valley between them and the hill I was on, and meandering along through this valley from the west I could trace the course of the Finke by its timber for some miles. To the east a mass of high and jumbled hills appeared, and one bluff-faced mount was more conspicuous than the rest. Nearer

to me, and almost under my feet, was the gorge through which the river passes, and it appears to be the only pass through this chain. I approached the precipice overlooking the gorge, and found the channel so flooded by the late rains, that it was impossible to get the horses up through it. The hills which enclosed it were equally impracticable, and it was utterly useless to try to get horses over them. The view to the west was gratifying, for the ranges appeared to run on in undiminished height in that direction, or a little north of it. From the face of several of the hills I climbed to-day, I saw streams of pure water running, probably caused by the late rains. One hill I passed over I found to be composed of pudding-stone, that is to say, a conglomeration of many kinds of stone mostly rounded and mixed up in a mass, and formed by the smothered bubblings of some ancient and ocean-quenched volcano. The surface of the place now more particularly mentioned had been worn smooth by the action of the passage of water, so that it presented the appearance of an enormous tessellated pavement, before which the celebrated Roman one at Bognor, in Sussex, which I remember, when I was a boy, on a visit to Goodwood, though more artistically but not more fantastically arranged, would be compelled to hide its diminished head. In the course of my rambles I noticed a great quantity of beautiful flowers upon the hills, of similar kinds to those collected in the Glen of Palms, and these interested me so greatly, that the day passed before I was aware, and I was made to remember the line, "How noiseless falls the foot of Time that only

treads on flowers." I saw two kangaroos and one rock wallaby, but they were too wild to allow me to approach near enough to get a shot at them. When I said I walked to-day, I really started on an old favourite horse called Cocky, that had carried me for years, and many a day have I had to thank him for getting me out of difficulties through his splendid powers of endurance. I soon found the hills too rough for a horse, so fixing up his bridle, I said, "Now you stop there till I come back." I believe he knew everything I said, for I used frequently to talk to him. When I came back at night, not thinking he would stay, as the other horses were all feeding within half a mile of him, there he was just as I had left him. I was quite inclined to rest after my scrambles in the hills. During the night nothing occurred to disturb our slumbers, which indeed were aided by the sounds of the rippling stream, which sang to us a soothing song.

CHAPTER III.

FROM 6TH SEPTEMBER TO 17TH SEPTEMBER, 1872.

Progress stopped—Fall back on a tributary—River flooded—A new range—Rudall's Creek—Reach the range—Grass-trees—Wild beauty of scene—Scarcity of water—A pea-like vetch—Name the range—A barren spot—Water seen from it—Follow a creek channel—Other creeks join it—A confined glen—Scrubby and stony hills—Strike a gum creek—Slimy water—A pretty tree—Flies troublesome—Emus—An orange tree—Tropic of Capricorn—Melodious sounds—Carmichael's Creek—Mountains to the north—Ponds of water—A green plain—Clay-pan water—Fine herbage—Kangaroos and emus numerous—A new tree—Agreeable encampment—Peculiar mountains—High peak—Start to ascend it—Game plentiful—Racecourse plain—Surrounded by scrubs—A bare slope—A yawning chasm—Appearance of the peak—Gleaming pools—Cypress pines—The tropic clime of youth—Proceed westwards—Thick scrubs—Native method of procuring water—A pine-clad hill—A watercourse to the south—A poor supply of water—Skywards the only view—Horses all gone—Increasing temperature—Attempt ascending high bluff—Timberless mountains—Beautiful flowers—Sultry night—Wretched encampment—Depart from it.

I HAD come to the decision, as it was impossible to follow the Finke through the gorge in consequence of the flood, and as the hills were equally impracticable, to fall back upon the tributary I had noticed the day before yesterday as joining the river from the west, thinking I might in twenty or thirty miles find a gap in the northern range that would

enable me to reach the Finke again. The night was very cold, the thermometer at daylight stood at 28°. The river had risen still higher in the night, and it was impossible to pass through the gorge. We now turned west-south-west, in order to strike the tributary. Passing first over rough stony ridges, covered with porcupine grass, we entered a sandy, thickly-bushed country, and struck the creek in ten miles. A new range lying west I expected to be the source of it, but it now seemed to turn too much to the south. There was very poor grass, it being old and dry, but as the new range to the west was too distant, we encamped, as there was water. This watercourse was called Rudall's Creek. A cold and very dewy night made all our packs, blankets, &c., wet and clammy; the mercury fell below freezing point, but instantly upon the sun's appearance it went up enormously. The horses rambled, and it was late when we reached the western range, as our road was beset by some miles of dense scrubs. The range was isolated, and of some elevation. As we passed along the creek, the slight flood became slighter still; it had now nearly ceased running. The day was one of the warmest we had yet experienced. The creek now seemed not to come from the range, but, thinking water might be got there so soon after rains, we travelled up to its foot. The country was sandy, and bedecked with triodia, but near the range I saw for the first time on this expedition a quantity of the Australian grass-tree (*Xanthorrhœa*) dotting the landscape. They were of all heights, from two to twenty feet. The country round the base of this range is not devoid of a certain kind of wild beauty.

A few blood-wood or red gum-trees, with their brilliant green foliage, enlivened the scene.

A small creek, lined with gum-trees, issued from an opening or glen, up which I rode in search of water, but was perfectly unsuccessful, as not a drop of the life-sustaining fluid was to be found. Upon returning to impart this discouraging intelligence to my companions, I stumbled upon a small quantity in a depression, on a broad, almost square boulder of rock that lay in the bed of the creek. There was not more than two quarts. As the horses had watered in the afternoon, and as there was a quantity of a herb, much like a green vetch or small pea, we encamped. I ascended a small eminence to the north, and with the glasses could distinguish the creek last left, now running east and west. I saw water gleaming in its channel, and at the junction of the little creek we were now on; there was also water nearly east. As the horses were feeding down the creek that way, I felt sure they would go there and drink in the night. It is, however, very strange whenever one wants horses to do a certain thing or feed a certain way, they are almost sure to do just the opposite, and so it was in the present case. On returning to camp by a circuitous route, I found in a small rocky crevice an additional supply of water, sufficient for our own requirements—there was nearly a bucketful—and felicity reigned in the camp. A few cypress pines are rooted in the rocky shelving sides of the range, which is not of such elevation as it appeared from a distance. The highest points are not more than from 700 to 800 feet. I collected some specimens of plants, which, however, are not peculiar to this

range. I named it Gosse's Range, after Mr. Harry Gosse. The late rains had not visited this isolated mass. It is barren and covered with spinifex from turret to basement, wherever sufficient soil can be found among the stones to admit of its growth.

The night of the 9th of September, like the preceding, was cold and dewy. The horses wandered quite in the wrong direction, and it was eleven o'clock before we got away from the camp and went north to the sheet of water seen yesterday, where we watered the horses and followed up the creek, as its course here appeared to be from the west. The country was level, open, and sandy, but covered with the widely pervading triodia (*irritans*). Some more *Xanthorrhœa* were seen, and several small creeks joined this from the ranges to the north. Small sheets of water were seen in the creek as we passed along, but whether they existed before the late rains is very problematical. The weather is evidently getting warmer. We had been following this creek for two days; it now turned up into a confined glen in a more northerly direction. At last its northern course was so pronounced we had to leave it, as it evidently took its rise amongst the low hills in that direction, which shut out any view of the higher ranges behind them. Our road was now about west-north-west, over wretched, stony, barren, mallee- (*Eucalyptus*) covered low hills or stony rises; the mallee scrub being so thick, it was difficult to drive the horses through it. Farther on we crested the highest ground the horses had yet passed over. From here with the glasses I fancied I saw the timber of a creek in a valley to

the north-west, in which direction we now went, and struck the channel of a small dry watercourse, whose banks were lined with gum-trees. When there is any water in its channel, its flow is to the west. The creek joined another, in which, after following it for a mile or two, I found a small pool of water, which had evidently lain there for many months, as it was half slime, and drying up fast. It was evident the late rains had not fallen here.

In consequence of the windings of the creeks, we travelled upon all points of the compass, but our main course was a little west of north-west. The day was warm enough, and when we camped we felt the benefit of what shade the creek timber could afford. Some of the small vetch, or pea-like plant, of which the horses are so fond, existed here. To-day we saw a single quandong tree (*Fusanus*; one of the sandal woods, but not of commerce) in full bearing, but the fruit not yet ripe. I also saw a pretty drooping acacia, whose leaves hung in small bunches together, giving it an elegant and pendulous appearance. This tree grows to a height of fifty feet; and some were over a foot through in the barrel.

The flies to-day were exceedingly troublesome: a sure sign of increasing temperature. We saw some emus, but being continually hunted by the natives, they were too shy to allow us to get within shot of them. Some emu steaks would come in very handy now. Near our pool of slime a so-called native orange tree (*Capparis*), of a very poor and stunted habit, grew; and we allowed it to keep on growing.

The stars informed me, in the night, that I was

almost under the tropic line, my latitude being 23° 29′. The horses fed well on the purple vetch, their bells melodiously tinkling in the air the whole night long. The sound of the animals' bells, in the night, is really musical to the explorer's ear. I called the creek after Mr. Carmichael; and hoping it would contain good water lower down, decided to follow it, as it trended to the west. We found, however, in a few miles, it went considerably to the south of west, when it eventually turned up again to the north-west.

We still had the main line of mountains on our right, or north of us: and now, to the south, another line of low hills trended up towards them; and there is evidently a kind of gap between the two lines of ranges, about twenty-five miles off. The country along the banks of Carmichael's Creek was open and sandy, with plenty of old dry grass, and not much triodia; but to the south, the latter and mallee scrub approached somewhat near. We saw several small ponds of water as we passed along, but none of any size. In seven or eight miles it split into several channels, and eventually exhausted itself upon an open grassy swamp or plain. The little plain looked bright and green. I found some rain water, in clay pans, upon it. A clay pan is a small area of ground, whose top soil has been washed or blown away, leaving the hard clay exposed; and upon this surface, one, two, three, or (scarcely) more inches of rain water may remain for some days after rain: the longer it remains the thicker it gets, until at last it dries in cakes which shine like tiles; these at length crumble away, and the clay pan is swept by winds clean and ready for the next shower. In the course

of time it becomes enlarged and deepened. They are very seldom deep enough for ducks.

The grass and herbage here were excellent. There were numerous kangaroos and emus on the plain, but they preferred to leave us in undisturbed possession of it. There were many evidences of native camping places about here; and no doubt the natives look upon this little circle as one of their happy hunting grounds. To-day I noticed a tree in the mallee very like a Currajong tree. This being the most agreeable and fertile little spot I had seen, we did not shift the camp, as the horses were in clover. Our little plain is bounded on the north by peculiar mountains; it is also fringed with scrub nearly all round. The appearance of the northern mountains is singular, grotesque, and very difficult to describe. There appear to be still three distinct lines. One ends in a bluff, to the east-north-east of the camp; another line ends in a bluff to the north-north-east; while the third continues along the northern horizon. One point, higher than the rest in that line, bears north 26° west from camp. The middle tier of hills is the most strange-looking; it recedes in the distance eastwards, in almost regular steps or notches, each of them being itself a bluff, and all overlooking a valley. The bluffs have a circular curve, are of a red colour, and in perspective appear like a gigantic flat stairway, only that they have an oblique tendency to the southward, caused, I presume, by the wash of ocean currents that, at perhaps no greatly distant geological period, must have swept over them from the north. My eyes, however, were mostly bent upon the high peak in the northern line; and Mr. Car-

michael and I decided to walk over to, and ascend it. It was apparently not more than seven or eight miles away.

As my reader is aware, I left the Finke issuing through an impracticable gorge in these same ranges, now some seventy-five miles behind us, and in that distance not a break had occurred in the ne whereby I could either get over or through it, meet the Finke again; indeed, at this distance was doubtful whether it were worth while to deavour to do so, as one can never tell what nge may take place, in even the largest of stralian streams, in such a distance. When last , it was trending along a valley under the foot he highest of three tiers of hills, and coming the west; but whether its sources are in those or that it still runs on somewhere to the north s, is the question which I now hope to solve. the more anxious to rediscover the Finke, if it still exists, because water has been by no means plentiful on the route along which I have lately een travelling; and I believe a better country ists upon the other side of the mountains.

At starting, Carmichael and I at first walked across the plain, we being encamped upon its southern end. It was beautifully grassed, and had good soil, and it would make an excellent race-course, or ground for a kangaroo hunt. We saw numbers of kangaroos, and emus too, but could get no shots at them. In three miles the plain ended in thick, indeed very dense, scrub, which continued to the foot of the hills; in it the grass was long, dry, and tangled with dead and dry burnt sticks and timber, making it exceedingly difficult to walk

through. Reaching the foot of the hills, I found the natives had recently burnt all the vegetation from their sides, leaving the stones, of which it was composed, perfectly bare. It was a long distance to the top of the first ridge, but the incline was easy, and I was in great hopes, if it continued so, to be able to get the horses over the mountains at this spot. Upon arriving at the top of the slope, I was, however, undeceived upon that score, for we found the high mount, for which we were steering, completely separated from us by a yawning chasm, which lay, under an almost sheer precipice, at our feet. The high mountain beyond, near the crown, was girt around by a solid wall of rock, fifty or sixty feet in height, from the edge of which the summit rose. It was quite unapproachable, except, perhaps, in one place, round to the northward.

The solid rock of which it had formerly been composed had, by some mighty force of nature, been split into innumerable fissures and fragments, both perpendicularly and horizontally, and was almost mathematically divided into pieces or squares, or unequal cubes, simply placed upon one another, like masons' work without mortar. The lower strata of these divisions were large, the upper tapered to pieces not much larger than a brick, at least they seemed so from a distance. The whole appearance of this singular mount was grand and awful, and I could not but reflect upon the time when these colossal ridges were all at once rocking in the convulsive tremblings of some mighty volcanic shock, which shivered them into the fragments I then beheld. I said the hill we had ascended ·ded abruptly in a precipice; by going farther

round we found a spot, which, though practicable, was difficult enough to descend. At the bottom of some of the ravines below I could see several small pools of water gleaming in little stony gullies.

The afternoon had been warm, if not actually hot, and our walking and climbing had made us thirsty; the sight of water made us all the more so. It was now nearly sundown, and it would be useless to attempt the ascent of the mountain, as by the time we could reach its summit, the sun would be far below the horizon, and we should obtain no view at all.

It was, however, evident that no gap or pass existed by which I could get my horses up, even if the country beyond were ever so promising. A few of the cypress or Australian pines (*Callitris*) dotted the summits of the hills, they also grew on the sides of some of the ravines below us. We had, at least I had, considerable difficulty in descending the almost perpendicular face to the water below. Carmichael got there before I did, and had time to sit, laving his feet and legs in a fine little rock hole full of pure water, filled, I suppose, by the late rains. The water, indeed, had not yet ceased to run, for it was trickling from hole to hole. Upon Mr. Carmichael inquiring what delayed me so long, I replied: "Ah, it is all very easy for you; you have two circumstances in your favour. You are young, and therefore able to climb, and besides, you are in the tropic." To which he very naturally replies, "If am in the tropic you must be also." I benignly answer, "No, you are in the tropic clime of youth." While on the high ground no view of any kind, except along the mountains for

a mile or two east and west, could be obtained. I was greatly disappointed at having such a toilsome walk for so little purpose. We returned by a more circuitous route, eventually reaching the camp very late at night, thoroughly tired out with our walk. I named this mountain Mount Musgrave. It is nearly 1700 feet above the level of the surrounding country, and over 3000 feet above the sea. The next day Mr. Carmichael went out to shoot game; there were kangaroos, and in the way of birds there were emus, crows, hawks, quail, and bronze-winged pigeons; but all we got from his expedition was nil. The horses now being somewhat refreshed by our stay here, we proceeded across the little plain towards another high bluff hill, which loomed over the surrounding country to the west-north-west. Flies were troublesome, and very busy at our eyes; soon after daylight, and immediately after sunrise, it became quite hot.

Traversing first the racecourse plain, we then entered some mulga scrub; the mulga is an acacia, the wood extremely hard. It grows to a height of twenty to thirty feet, but is by no means a shady or even a pretty tree; it ranges over an enormous extent of Australia. The scrub we now entered had been recently burnt near the edge of the plain; but the further we got into it, the worse it became. At seven miles we came to stones, triodia, and mallee, a low eucalyptus of the gum-tree family, growing generally in thick clumps from one root: its being rooted close together makes it difficult travelling to force one's way through. It grows about twenty feet high. The higher grade eucalypts or gum-trees delight in water and a

good soil, and nearly always line the banks of watercourses. The eucalypts of the mallee species thrive in deserts and droughts, but contain water in their roots which only the native inhabitants of the country can discover. A white man would die of thirst while digging and fooling around trying to get the water he might know was preserved by the tree, but not for him; while an aboriginal, upon the other hand, coming to a mallee-tree, after perhaps travelling miles through them without noticing one, will suddenly make an exclamation, look at a tree, go perhaps ten or twelve feet away, and begin to dig. In a foot or so he comes upon a root, which he shakes upwards, gradually getting more and more of it out of the ground, till he comes to the foot of the tree; he then breaks it off, and has a root perhaps fifteen feet long—this, by the way, is an extreme length. He breaks the root into sections about a foot long, ties them into bundles, and stands them up on end in a receptacle, when they drain out a quantity of beautifully sweet, pure water. A very long root such as I have mentioned might give nearly a bucketful of water; but woe to the white man who fancies he can get water out of mallee. There are a few other trees of different kinds that water is also got from, as I have known it obtained from the mulga, acacia trees, and from some casuarina trees; it depends upon the region they are in, as to what trees give the most if any water, but it is an aboriginal art at any time or place to find it.

The mallee we found so dense that not a third of the horses could be seen together, and with great difficulty we managed to reach the foot of

a small pine-clad hill lying under the foot of the high bluff before mentioned—there a small creek lined with eucalypts ran under its foot. Though our journey to-day was only twelve miles, that distance through such horrible scrubs took us many hours. From the top of the piny hill I could see a watercourse to the south two or three miles away; it is probably Carmichael's Creek, reformed, after splitting on the plain behind; Carmichael found a little water-hole up this channel, with barely sufficient water for our use. The day had been disagreeably warm. I rode over to the creek to the south, and found two small puddles in its bed; but there was evidently plenty of water to be got by digging, as by scratching with my hands I soon obtained some. The camp which Carmichael and Robinson had selected, while I rode over to the other creek, was a most wretched place, in the midst of dense mallee and amidst thick plots of triodia, which we had to cut away before we could sit down.

The only direction in which we could see a yard ahead of us was up towards the sky; and as we were not going that way, it gave us no idea of our next line of route. The big bluff we had been steering for all day was, I may say, included in our skyward view, for it towered above us almost overhead. Being away when the camp was selected, I was sorry to hear that the horses had all been let go without hobbles; as they had been in such fine quarters for three nights at the last camp on the plain, it was more than probable they would work back through the scrub to it in the night. The following morning not a horse was to

be found! Robinson and I went in search of them, and found they had split into several mobs. I only got three, and at night Robinson returned with only six, the remainder had been missed in the dense scrubs. The thermometer stood at 95° in the shade, and there was a warm wind blowing. Robinson had a fine day's work, as he had to walk back to the camp on the plain for the horses he got. In the afternoon I attempted the high bluff immediately overlooking the camp. I had a bit of cliff-climbing, and reached the summit of one hill of some elevation, 1300 feet, and then found that a vast chasm, or ravine, separated me from the main mountain chain. It would be dark before I could—if I could—reach the summit, and then I should get no view, so I returned to the camp. The height was considerable, as mountains in this part of the world go, as it towered above the hill I was upon, and was 500 or 600 feet higher. These mountains appear to be composed of a kind of conglomerate granite; very little timber existed upon them, but they were splendidly supplied with high, strong, coarse spinifex. I slipped down a gully, fell into a hideous bunch of this horrid stuff, and got pricked from head to foot; the spiny points breaking off in my clothes and flesh caused me great annoyance and pain for many days after. Many beautiful flowers grew on the hillsides, in gullies and ravines; of these I collected several. We secured what horses we had, for the night, which was warm and sultry. In the morning Robinson and I rode after the still missing ones; at the plain camp we found all except one, and by the time we returned it was night.

Not hobbling the horses in general, we had some difficulty in finding a pair of hobbles for each, and not being able to do so, I left one in the mob without. This base reptile surreptitiously crawled away in the night by himself. As our camp was the most wretched dog-hole it was possible for a man to get into, in the midst of dense mallee, triodia, and large stones, I determined to escape from it, before looking for the now two missing animals. The water was completely exhausted. We moved away south-westerly for about three miles, to the creek I had scratched in some days ago; now we had to dig a big hole with a shovel, and with a good deal of labour we obtained a sufficient supply for a few days.

CHAPTER IV.

FROM 17TH SEPTEMBER TO 1ST OCTOBER, 1872.

Search for the missing horses—Find one—Hot wind and flying sand—Last horse recovered—Annoyed by flies—Mountains to the west — Fine timber — Gardiner's Range — Mount Solitary—Follow the creek—Dig a tank—Character of the country—Thunderstorms — Mount Peculiar — A desolate region—Sandhills—Useless rain—A bare granite hill—No water—Equinoctial gales—Search for water—Find a rock reservoir — Native fig-trees—Gloomy and desolate view—The old chain—Hills surrounded by scrubs—More hills to the west — Difficult watering-place — Immortelles — Cold weather—View from a hill—Renewed search for water—Find a small supply—Almost unapproachable—Effects of the spinifex on the horses — Pack-horses in scrubs—The Mus conditor — Glistening micaceous hills — Unsuccessful search — Waterless hill nine hundred feet high — Oceans of scrub — Retreat to last reservoir — Natives' smokes —Night without water—Unlucky day—Two horses lost—Recover them—Take a wrong turn—Difficulty in watering the horses—An uncomfortable camp—Unsuccessful searches—Mount Udor—Mark a tree—Tender-footed horses—Poor feed—Sprinkling rain—Flies again troublesome—Start for the western ranges—Difficult scrubs—Lonely camp—Horses away—Reach the range—No water—Retreat to Mount Udor—Slight rain—Determine to abandon this region—Corkwood trees—Ants' nests—Glow-worms—Native poplar-trees—Peculiar climate—Red gum-trees—A mare foals—Depart for the south—Remarks on the country.

HAVING fixed our camp at a new place, in the afternoon of the 17th September, Robinson and I again went to look after the horses. At three miles

above the camp we found some water; soon after we got the tracks of one horse and saw that he had been about there for a day or two, as the tracks were that age. We made a sweep out round some hills, found the tracks again, much fresher, and came upon the horse about seven miles from the camp. The other horse was left for to-morrow. Thermometer 96°, sky overcast, rain imminent.

During the night of the 18th of September a few heat-drops of rain fell. I sent Robinson away to the plain camp, feeling sure he would find the rover there. A hot wind blew all day, the sand was flying about in all directions. Robinson got the horse at last at the plain, and I took special care to find a pair of hobbles for him for this night at all events. The flies were an intolerable nuisance, not that they were extraordinarily numerous, but so insufferably pertinacious. I think the tropic fly of Australia the most abominable insect of its kind. From the summit of the hill I ascended on Sunday, I found the line of mountains still ran on to the west, the farthest hills appeared fifty miles away. As they extend so far, and are the principal features in sight, I shall follow them, in hopes of meeting some creek, or river, that may carry me on to the west. It is a remarkable fact that such high hills as I have been following should send out no creek whose course extends farther than ten or twelve miles. I could trace the creek I am now on by its timber for only a few miles, its course appearing south of west. The country in its immediate neighbourhood is open, and timbered with fine casuarina trees; the grass is dry and long,

and the triodia approaches to within a quarter of a mile of it. The line of hills I previously mentioned as running along to the south of us, we had now run out. I named them Gardiner's Range, after a friend of Mr. Carmichael's. There is, however, one small isolated hill, the farthest outpost of that line, some three miles away to the south-west; the creek may probably take a bend down towards it. I called it Mount Solitary. This creek is rather well timbered, the gum-trees look fresh and young, and there is some green herbage in places, though the surface water has all disappeared.

There was so little water at the camp tank, we had to send the horses up the creek three miles to water, and on their return I was not sorry to be moving again, for our stay at these two last camps had been compulsory, and the anxiety, trouble, and annoyance we had, left no very agreeable reminiscences of the locality in our minds.

We travelled along the creek all day, cutting off the bends, but without seeing any signs of water: towards evening we set to work to try if we could get any by digging. In about four feet, water began to drain in, but, the sand being so loose, we had to remove an enormous quantity to enable a horse to drink. Some of the horses would not go into it, and had to be watered with a canvas bucket. The supply seemed good, but it only drained in from the sides. Every time a horse drank we had to clear out the sand for the next; it therefore took until late before all were satisfied. The country was still open, and timbered with fine black oak, or what is so called in Australia. It is a species of casuarina, of the same family but distinct from the

beautiful desert oak. Triodia reigned supreme within half a mile. At this camp the old grass had been burnt, and fresh young green shoots appeared in its place; this was very good for the horses. A few drops of rain fell; distant rumblings of thunder and flashes of lightning now cooled the air. While we were at breakfast the next morning, a thunderstorm came up to us from the west, then suddenly turned away, only just sprinkling us, though we could see the rain falling heavily a few yards to the south. We packed up and went off, hoping to find a better-watered region at the hills westwards. There was an extraordinary mount a little to the west of north from us; it looked something like a church; it was over twenty miles away: I called it Mount Peculiar. Leaving the creek on our left, to run itself out into some lonely flat or dismal swamp, known only to the wretched inhabitants of this desolate region—over which there seems to brood an unutterable stillness and a dread repose—we struck into sand-hill country, rather open, covered with the triodia or spinifex, and timbered with the casuarina or black oak trees. We had scarcely gone two miles when our old thunderstorm came upon us—it had evidently missed us at first, and had now come to look for us—and it rained heavily. The country was so sandy and porous that no water remained on the surface. We travelled on and the storm travelled with us—the ground sucking up every drop that fell. Continuing our course, which was north 67° west, we travelled twenty-five miles. At this distance we came in sight of the mountains I was steering for, but they were too distant to reach before night, so, turning a little northward to the

foot of a low, bare, white granite hill, I hoped to find a creek, or at least some ledges in the rocks, where we might get some water. Not a drop was to be found. Though we had been travelling in the rain all day and accomplished thirty miles, we were obliged to camp without water at last. There was good feed for the horses, and, as it was still raining, they could not be very greatly in want of water. We fixed up our tent and retired for the night, the wind blowing furiously, as might reasonably be expected, for it was the eve of the vernal equinox, and this I supposed was our share of the equinoctial gales. We were compelled in the morning to remove the camp, as we had not a drop of water, and unless it descended in sheets the country could not hold it, being all pure red sand. The hill near us had no rocky ledges to catch water, so we made off for the higher mountains for which we were steering yesterday. Their nearest or most eastern point was not more than four miles away, and we went first to it. I walked on ahead of the horses with the shovel, to a small gully I saw with the glasses, having some few eucalypts growing in it. I walked up it, to and over rocky ledges, down which at times, no doubt, small leaping torrents roar. Very little of yesterday's rain had fallen here; but most fortunately I found one small rock reservoir, with just sufficient water for all the horses. There was none either above or below in any other basin, and there were many better-looking places, but all were dry. The water in this one must have stood for some time, yesterday's rain not having affected it in the least. The place at which I found the water was the most difficult for horses to reach; it was

almost impracticable. After finding this opportune though awkwardly situated supply, I climbed to the summit of the mount. On the top was a native fig-tree in full bearing; the fruit was ripe and delicious. It is the size of an ordinary marble, yellow when unripe, and gradually becoming red, then black: it is full of small seeds. I was disturbed from my repast by seeing the horses, several hundred feet below me, going away in the wrong direction, and I had to descend before I had time to look around; but the casual glance I obtained gave me the most gloomy and desolate view imaginable; one, almost enough to daunt the explorer from penetrating any farther into such a dreadful region. To the eastward, I found I had now long outrun the old main chain of mountains, which had turned up to the north, or rather north-north-westward; between me and it a mass of jumbled and broken mounts appeared; each separate one, however, was almost surrounded by scrubs, which ran up to the foot of the hill I was upon. Northward the view was similar. To the west the picture was the same, except that a more defined range loomed above the intervening scrubs—the hills furthest away in that direction being probably fifty miles distant. The whole horizon looked dark and gloomy—I could see no creeks of any kind, the most extensive water channels were mere gullies, and not existing at all at a mile from the hills they issued from.

Watering our horses proved a difficult and tedious task; as many of them would not approach the rocky basin, the water had to be carried up to them in canvas buckets. By the time they were all watered, and we had descended from the rocky

gully, the day had passed with most miraculous celerity. The horses did not finish the water, there being nearly sufficient to give them another drink. The grass was good here, as a little flat, on which grew some yellow immortelles, had recently been burnt. I allowed the horses to remain and drink up the balance of the water, while I went away to inspect some other gorges or gullies in the hills to the west of us, and see whether any more water could be found. The day was cool and fine.

I climbed to the summit of a hill about 800 feet from its base. The view was similar to yesterday's, except that I could now see these hills ran on west for twelve or fifteen miles, where the country was entirely covered with scrubs. Little gullies, with an odd, and stunted, gum-tree here and there, were seen. Few of these gullies were more than six feet wide, and the trumpery little streams that descend, in even their most flooded state, would be of but little service to anybody. I had wandered up and down hills, in and out of gullies, all the morning, but had met no single drop of water, and was returning disappointed to the camp when, on trying one more small scrubby, dreadfully-rocky little gully which I had missed, or rather passed by, in going out, I was fortunate enough to discover a few small rocky holes full of the purest fluid. This treasure was small indeed, but my gratitude was great; for what pleased me most was the rather strange fact that the water was trickling from one basin to another, but with the weakest possible flow. Above and below where I found this water the gully and the rocks were as dry as the desert around. Had the supply not been kept up by the

trickling, half my horses would have emptied all the holes at a draught.

The approach to this water was worse, rougher, rockier, and more impracticable than at the camp; I was, however, most delighted to have found it, otherwise I should have had to retreat to the last creek. I determined, however, not to touch it now, but to keep it as a reserve fund, should I be unable to find more out west. Returning to camp, we gave the horses all the water remaining, and left the spot perfectly dry.

We now had the line of hills on our right, and travelled nearly west-north-west. Close to the foot of the hills the country is open, but covered with large stones, between the interstices of which grow huge bunches of the hideous spinifex, which both we and the horses dread like a pestilence. We have encountered this scourge for over 200 miles. All around the coronets of most of the horses, in consequence of their being so continually punctured with the spines of this terrible grass, it has caused a swelling, or tough enlargement of the flesh and skin, giving them the appearance of having ring-bones. Many of them have the flesh quite raw and bleeding; they are also very tender-footed from traversing so much stony ground, as we have lately had to pass over. Bordering upon the open stony triodia ground above-mentioned is a bed of scrubs, composed chiefly of mulga, though there are various other trees, shrubs, and plants amongst it. It is so dense and thick that in it we cannot see a third of the horses at once; they, of course, continually endeavour to make into it to avoid the stones and triodia; for, generally speaking, the pungent triodia

and the mulga acacia appear to be antagonistic members of the vegetable kingdom. The ground in the scrubs is generally soft, and on that account also the horses seek it. Out of kindness, I have occasionally allowed them to travel in the scrubs, when our direct course should have been on the open, until some dire mishap forces us out again; for, the scrubs being so dense, the horses are compelled to crash through them, tearing the coverings of their loads, and frequently forcing sticks in between their backs or sides and their saddles, sometimes staking themselves severely. Then we hear a frantic crashing through the scrubs, and the sounds of the pounding of horse-hoofs are the first notice we receive that some calamity has occurred. So soon as we ourselves can force our way through, and collect the horses the best way we can, yelling and howling to one another to say how many each may have got, we discover one or two missing. Then they have to be tracked; portions of loads are picked up here and there, and, in the course of an hour or more, the horse or horses are found, repacked, and on we push again, mostly for the open, though rough and stony spinifex ground, where at least we can see what is going on. These scrubs are really dreadful, and one's skin and clothes get torn and ripped in all directions. One of these mishaps occurred to-day.

In these scrubs are met nests of the building rat (Mus conditor). They form their nests with twigs and sticks to the height of four feet, the circumference being fifteen to twenty. The sticks are all lengths up to three feet, and up to an inch in diameter. Inside are chambers and galleries, while

in the ground underneath are tunnels, which are carried to some distance from their citadel. They occur in many parts of Australia, and are occasionally met with on plains where few trees can be found. As a general rule, they frequent the country inhabited by the black oak (casuarina). They can live without water, but, at times, build so near a watercourse as to have their structures swept away by floods. Their flesh is very good eating.

In ten miles we had passed several little gullies, and reached the foot of other hills, where a few Australian pines were scattered here and there. These hills have a glistening, sheening, laminated appearance, caused by the vast quantities of mica which abounds in them. Their sides are furrowed and corrugated, and their upper portions almost bare rock. Time was lost here in unsuccessful searches for water, and we departed to another range, four or five miles farther on, and apparently higher; therefore perhaps more likely to supply us with water. Mr. Carmichael and I ascended the range, and found it to be 900 feet from its base; but in all its gullies water there was none. The view from the summit was just such as I have described before — an ocean of scrubs, with isolated hills or ranges appearing like islands in most directions. Our horses had been already twenty-four hours without water. I wanted to reach the far range to the west, but it was useless to push all the pack-horses farther into such an ocean of scrubs, as our rate of progress in them was so terribly slow. I decided to return to the small supply I had left as a reserve, and go myself to the far range, which was yet some thirty miles away. The country southward seemed

to have been more recently visited by the natives than upon our line of march, which perhaps was not to be wondered at, as what could they get to live on out of such a region as we had got into? Probably forty or fifty miles to the south, over the tops of some low ridges, we saw the ascending smoke of spinifex fires, still attended to by the natives; and in the neighbourhood, no doubt, they had some watering places. On our retreat we travelled round the northern face of the hills, upon whose south side we had arrived, in hopes of finding some place having water, where I might form a depot for a few days. By night we could find none, and had to encamp without, either for ourselves or our horses.

The following day seemed foredoomed to be unlucky; it really appeared as though everything must go wrong by a natural law. In the first place, while making a hobble peg, while Carmichael and Robinson were away after the horses, the little piece of wood slipped out of my hand, and the sharp blade of the knife went through the top and nail of my third finger and stuck in the end of my thumb. The cut bled profusely, and it took me till the horses came to sew my mutilated digits up. It was late when we left this waterless spot. As there was a hill with a prepossessing gorge, I left Carmichael and Robinson to bring the horses on, and rode off to see if I could find water there. Though I rode and walked in gullies and gorges, no water was to be found. I then made down to where the horses should have passed along, and found some of them standing with their packs on, in a small bit of open ground, surrounded by dense scrubs, which by

chance I came to, and nobody near. I called and waited, and at last Mr. Carmichael came and told me that when he and Robinson debouched with the horses on this little open space, they found that two of the animals were missing, and that Robinson had gone to pick up their tracks. The horse carrying my papers and instruments was one of the truants. Robinson soon returned, not having found the track. Neither of them could tell when they saw the horses last. I sent Mr. Carmichael to another hill two or three miles away, that we had passed, but not inspected yesterday, to search for water, while Robinson and I looked for the missing horses. And lest any more should retreat during our absence, we tied them up in two mobs. Robinson tied his lot up near a small rock. We then separately made sweeps round, returning to the horses on the opposite side, without success. We then went again in company, and again on opposite sides singly, but neither tracks nor horses could be found. Five hours had now elapsed since I first heard of their absence. I determined to make one more circuit beyond any we had already taken, so as to include the spot we had camped at; this occupied a couple of hours. When I returned I was surprised to hear that Robinson had found the horses in a small but extra dense bunch of scrub not twenty yards from the spot where he had tied his horses up. While I was away he had gone on top of the little stony eminence close by, and from its summit had obtained a bird's-eye view of the ground below, and thus perceived the two animals, which had never been absent at all. It seemed strange to me that I could not find their tracks, but the reason was

there were no tracks to find. I took it for granted when Carmichael told me of their absence that they were absent, but he and Robinson were both mistaken.

It was now nearly evening, and I had been riding my horse at a fast pace the whole day; I was afraid we could not reach the reserve water by night. But we pushed on, Mr. Carmichael joining us, not having found any water. At dusk we reached the small creek or gully, up in whose rocks I had found the water on Sunday. At a certain point the creek split in two, or rather two channels joined, and formed one, and I suppose the same ill fate that had pursued me all day made me mistake the proper channel, and we drove the unfortunate and limping horses up a wretched, rocky, vile, scrubby, almost impenetrable gully, where there was not a sup of water.

On discovering my error, we had to turn them back over the same horrible places, all rocks, dense scrubs, and triodia, until we got them into the proper channel. When near the first little hole I had formerly seen, I dismounted, and walked up to see how it had stood during my absence, and was grieved to discover that the lowest and largest hole was nearly dry. I bounded up the rocks to the next, and there, by the blessing of Providence, was still a sufficient quantity, as the slow trickling of the water from basin to basin had not yet entirely ceased, though its current had sadly diminished since my last visit only some seventy hours since.

By this time it was dark, and totally impossible to get the horses up the gully. We had to get them over a horrible ridge of broken and jumbled rocks,

having to get levers and roll away huge boulders, to make something like a track to enable the animals to reach the water.

Time (and labour) accomplishes all things, and in time the last animal's thirst was quenched, and the last drop of water sucked up from every basin. I was afraid it would not be replenished by morning. We had to encamp in the midst of a thicket of a kind of willow acacia with pink bark all in little curls, with a small and pretty mimosa-like leaf. This bush is of the most tenacious nature—you may bend it, but break it won't. We had to cut away sufficient to make an open square, large enough for our packs, and to enable us to lie down, also to remove the huge bunches of spinifex that occupied the space; then, when the stones were cleared away, we had something like a place for a camp. By this time it was midnight, and we slept, all heartily tired of our day's work, and the night being cool we could sleep in comfort. Our first thought in the morning was to see how the basins looked. Mr. Carmichael went up with a keg to discover, and on his return reported that they had all been refilled in the night, and that the trickling continued, but less in volume. This was a great relief to my mind; I trust the water will remain until I return from those dismal-looking mountains to the west. I made another search during the morning for more water, but without success, and I can only conclude that this water was permitted by Providence to remain here in this lonely spot for my especial benefit, for no more rain had fallen here than at any of the other hills in the neighbourhood, nor is this one any higher or different from the others which I

visited, except that this one had a little water and all the rest none. In gratitude therefore to this hill I have called it Mount Udor. Mount Udor was the only spot where water was to be found in this abominable region, and when I left it the udor had departed also. I got two of my riding-horses shod to-day, as the country I intended to travel over is about half stones and half scrub. I have marked a eucalyptus or gum-tree in this gully close to the foot of the rock where I found the water [$\frac{EG}{21}$], as this is my twenty-first camp from Chambers' Pillar. My position here is in latitude 23° 14′, longitude 130° 55′, and variation 3° east nearly. I could not start to-day as the newly shod horses are so tender-footed that they seem to go worse in their shoes; they may be better to-morrow. The water still holds out. The camp is in a confined gully, and warm, though it is comparatively a cool day. The grass here is very poor, and the horses wander a great deal to look for feed. Four of them could not be found in the morning. A slight thunder-storm passed over in the night, with a sprinkling of rain for nearly an hour, but not sufficient fell to damp a pocket-handkerchief. It was, however, quite sufficient to damp my hopes of a good fall. The flies are very numerous here and troublesome. After watering my two horses I started away by myself for the ranges out west. I went on our old tracks as far as they went, then I visited some other hills on my line of march. As usual, the country alternated between open stones at the foot of the hills and dense scrubs beyond. I thought one of the beds of scrubs I got into the densest I had ever seen, it was actually impenetrable without cutting

one's way, and I had to turn around and about in all directions. I had the greatest difficulty to get the horse I was leading to come on at all; I had no power over him whatever. I could not use either a whip or a stick, and he dragged so much that he nearly pulled me out of my saddle, so that I could hardly tell which way I was going, and it was extremely difficult to keep anything like a straight course. Night overtook me, and I had to encamp in the scrubs, having travelled nearly forty miles. A few drops of rain fell; it may have benefited the horses, but to me it was a nuisance. I was up, off my sandy couch early enough, but had to wait for daylight before I could get the horses; they had wandered away for miles back towards the camp, and I had the same difficulties over again when getting them back to where the saddles were. In seven or eight miles after starting I got out of the scrubs. At the foot of the mountain for which I was steering there was a little creek or gully, with some eucalypts where I struck it. It was, as all the others had been, scrubby, rocky, and dry. I left the horses and ascended to the top, about 900 feet above the scrubs which surrounded it. The horizon was broken by low ranges nearly all round, but scrubs as usual intervened between them. I descended and walked into dozens of gullies and rocky places, and I found some small holes and basins, but all were dry. At this spot I was eighty miles from a sufficient supply of water; that at the camp, forty-five miles away, may be gone by the time I return. Under these circumstances I could not go any farther west. It was now evening again. I left these desolate hills, the Ehrenberg Ranges of

my map, and travelled upon a different line, hoping to find a better or less thick route through the scrubs, but it was just the same, and altogether abominable. Night again overtook me in the direful scrubs, not very far from the place at which I had slept the previous night; the most of the day was wasted in an ineffectual search for water.

On Sunday morning, the 29th September, having hobbled my horses so short, although the scrubs were so thick, they were actually in sight at dawn; I might as well have tied them up. Starting at once, I travelled to one or two hills we had passed by, but had not inspected before. I could find no water anywhere. It was late when I reached the camp, and I was gladdened to find the party still there, and that the water supply had held out so long. On the following morning, Monday, the 30th of September, it was at a very low ebb; the trickling had ceased in the upper holes, though it was still oozing into the lower ones, so that it was absolutely necessary to pack up and be off from this wretched place. It was an expedition in itself to get water for the camp, from the rock basins above. The horses dreaded to approach it on account of their tender feet. It required a lot of labour to get sufficient firewood to boil a quart pot, for, although we were camped in a dense thicket, the small wood of which it was composed was all green, and useless for firewood.

I intended to retreat from here to-day, but just as Robinson was starting to find the horses a shower of rain came on, and hoping it might end in a heavier fall, I decided to remain until to-morrow, to give the rain a chance,—especially as, aided by the

slight rain, the horses could do without a drink, there now being only one drink remaining, as the trickling had entirely ceased, though we yet had the little holes full. The rain fell in a slight and gentle shower two or three hours, but it left no trace of its fall, even upon the rocks, so that our water supply was not increased by one pint.

To-morrow I am off; it is useless to remain in a region such as this. But where shall I go next? The creek I had last got water in, might even now be dry. I determined to try and reach it farther down its channel. If it existed beyond where I left it, I expected, in twenty-five to thirty miles, in a southerly direction, to strike it again: therefore, I decided to travel in that direction. A few quandongs, or native peach trees, exist amongst these gullies; also a tree that I only know by the name of the corkwood tree.* The wood is soft, and light in weight and colour. It is by no means a handsome tree. It grows about twenty feet high. Generally two or three are huddled together, as though growing from one stem. Those I saw were nearly all dead. They grow in the little water channels. The ants here, as in nearly the whole of Tropical Australia, build nests from four to six feet high—in some other parts I have known them twenty—to escape, I suppose, from the torrents of rain that at times fall in these regions: the height

* "Sesbania grandiflora," Baron Mueller says, "North-Western Australia; to the verge of the tropics; Indian Archipelago; called in Australia the corkwood tree; valuable for various utilitarian purposes. The red-flowered variety is grandly ornamented. Dr. Roxburgh recommends the leaves and young pods as an exquisite spinach; the plant is shy of frost."

also protects their eggs and stores from the fires the natives continually keep burning. This burning, perhaps, accounts for the conspicuous absence of insects and reptiles. One night, however, I certainly saw glowworms. These I have only seen in one other region in Australia—near Geelong, in Victoria. A tree called the native poplar (*Codonocarpus cotinifolius*) is also found growing in the scrubs and water-channels of this part of the country. The climate of this region appears very peculiar. Scarcely a week passes without thunderstorms and rain; but the latter falls in such small quantities that it is almost useless. It is evidently on this account that there are no waters or watercourses deserving of the name. I should like to know how much rain would have to fall here before any could be discovered lying on the ground. All waters found in this part of the country must be got out of pure sand, in a water channel or pure rock. The native orange-tree grows here, but the specimens I have met are very poor and stunted. The blood-wood-trees, or red gum-trees, which always enliven any landscape where they are found, also occur. They are not, however, the magnificent vegetable structures which are known in Queensland and Western Australia, but are mostly gnarled and stunted. They also grow near the watercourses.

The 1st October broke bright and clear, and I was only too thankful to get out of this horrible region and this frightful encampment, into which the fates had drawn me, alive. When the horses arrived, there was only just enough water for all to drink; but one mare was away, and Robinson said she had foaled. The foal was too young to walk

or move; the dam was extremely poor, and had been losing condition for some time previously; so Robinson went back, killed the foal, and brought up the mare. Now there was not sufficient water to satisfy her when she did come. Mr. Carmichael and I packed up the horses, while Robinson was away upon his unpleasant mission. When he brought her up, the mare looked the picture of misery. At last I turned my back upon this wretched camp and region; and we went away to the south. It was half-past two o'clock when we got clear from our prison.

It is almost a work of supererogation to make many further remarks on the character of this region—I mean, of course, since we left the Finke. I might, at a word, condemn it as a useless desert. I will, however, scarcely use so sweeping a term. I can truly say it is dry, stony, scrubby, and barren, and this in my former remarks any one who runs can read. I saw very few living creatures, but it is occasionally visited by its native owners, to whom I do not grudge the possession of it. Occasionally the howls of the native dog (*Canis familiaris*)—or dingo as he is usually called—were heard, and their footprints in sandy places seen. A small species of kangaroo, known as the scrub wallaby, were sometimes seen, and startled from their pursuit of nibbling at the roots of plants, upon which they exist; but the scrubs being so dense, and their movements so rapid, it was utterly impossible to get a shot at them. Their greatest enemy —besides the wild black man and the dingo— is the large eagle-hawk, which, though flying at an enormous height, is always on the watch; but it is only when the wallaby lets itself out, on to the stony

open, that the enemy can swoop down upon it. The eagle trusses it with his talons, smashes its head with its beak to quiet it, and, finally, if a female, flies away with the victim to its nest for food for its young, or if a male bird, to some lonely rock or secluded tarn, to gorge its fill alone. I have frequently seen these eagles swoop on to one, and, while struggling with its prey, have galloped up and secured it myself, before the dazed wallaby could collect its senses. Other birds of prey, such as sparrow-hawks, owls, and mopokes (a kind of owl), inhabit this region, but they are not numerous. Dull-coloured, small birds, that exist entirely without water, are found in the scrubs; and in the mornings they are sometimes noisy, but not melodious, when there is a likelihood of rain; and the smallest of Australian ornithology, the diamond bird (*Amadina*) of Gould, is met with at almost every watering place. Reptiles and insects, as I have said, are scarce, on account of the continual fires the natives use in their perpetual hunt for food.

CHAPTER V.

FROM 1ST TO 15TH OCTOBER, 1872.

A bluff hill—Quandong trees—The mulga tree—Travel S. S.E. —Mare left behind—Native peaches—Short of water—Large tree—Timbered ridges—Horses suffer from thirst—Pine-trees—Native encampments—Native paintings in caves—Peculiar crevice—A rock tarn—A liquid prize—Caverns and caves—A pretty oasis—Ripe figs—Recover the mare—Thunder and lightning—Ornamented caves—Hands of glory—A snake in a hole—Heavy dew—Natives burning the country—A rocky eminence—Waterless region—Cheerless view—A race of Salamanders—Circles of fire—Wallaby and pigeons—Wallaby traps—Return to depot—Water diminishing—Glen Edith—Mark trees—The tarn of Auber—Landmarks to it—Seeds sown—Everything in miniature—Journey south—Desert oaks—A better region—Kangaroos and emus—Desert again—A creek channel—Water by scratching—Find more—Splendid grass—Native signs—Farther south—Beautiful green—Abundance of water—Follow the channel—Laurie's Creek—Vale of Tempe—A gap or pass—Without water—Well-grassed plain—Native well—Dry rock holes—Natives' fires—New ranges—High mountain—Return to creek—And Glen Edith—Description of it.

On starting from Mount Udor, on the 1st October, our road lay at first over rocks and stones, then for two or three miles through thick scrubs. The country afterwards became a trifle less scrubby, and consisted of sandhills, timbered with casuarina, and covered, as usual, with triodia. In ten miles we passed a low bluff hill, and camped near it, without any water. On the road we saw several quan-

dong trees, and got some of the ripe fruit. The day was warm and sultry; but the night set in cool, if not cold. Mr. Carmichael went to the top of the low bluff, and informed me of the existence of low ridges, bounding the horizon in every direction except to the S.S.E., and that the intervening country appeared to be composed of sandhills, with casuarinas, or mulga scrubs.

In Baron von Mueller's extraordinary work on Select Extra-tropical Plants, with indications of their native countries, and some of their uses, these remarks occur: — "*Acacia aneura*, Ferd. v. Mueller. Arid desert—interior of extra tropic Australia. A tree never more than twenty-five feet high. The principal 'mulga' tree. Mr. S. Dixon praises it particularly as valuable for fodder of pasture animals; hence it might locally serve for ensilage. Mr. W. Johnson found in the foliage a considerable quantity of starch and gum, rendering it nutritious. Cattle and sheep browse on the twigs of this, and some allied species, even in the presence of plentiful grass; and are much sustained by such acacias in seasons of protracted drought. Dromedaries in Australia crave for the mulga as food. Wood excessively hard, dark-brown; used, preferentially, by the natives for boomerangs, sticks with which to lift edible roots, and shafts of phragmites, spears, wommerahs, nulla-nullas, and jagged spear ends. Mr. J. H. Maiden determined the percentage of mimosa tannic acid in the perfectly dry bark as 8·62." The mulga bears a small woody fruit called the mulga apple. It somewhat resembles the taste of apples, and is sweet. If crab apples, as is said, were the originals of all the

present kinds, I imagine an excellent fruit might be obtained from the mulga by cultivation. As this tree is necessarily so often mentioned in my travels, the remarks of so eminent a botanist upon it cannot be otherwise than welcome.

In the direction of S.S.E. Mr. Carmichael said the country appeared most open. A yellow flower, of the immortelle species, which I picked at this little bluff, was an old Darling acquaintance; the vegetation, in many respects, resembles that of the River Darling. There was no water at this bluff, and the horses wandered all over the country during the night, in mobs of twos and threes. It was mid-day before we got away. For several hours we kept on S.S.E., over sandhills and through casuarina timber, in unvarying monotony. At about five o'clock the little mare that had foaled yesterday gave in, and would travel no farther. We were obliged to leave her amongst the sandhills.

We continued until we had travelled forty miles from Mount Udor, but no signs of a creek or any place likely to produce or hold water had been found. The only difference in the country was that it was now more open, though the spinifex was as lively as ever.

We passed several quandong trees in full fruit, of which we ate a great quantity; they were the most palatable, and sweetest I have ever eaten. We also passed a few Currajong-trees (*Brachychiton*). At this point we turned nearly east. It was, however, now past sundown, too dark to go on any farther, and we had again to encamp without water, our own small supply being so limited that we could have only a third of a pint each, and we could not eat any-

thing in consequence. The horses had to be very short-hobbled to prevent their straying, and we passed the night under the umbrage of a colossal Currajong-tree. The unfortunate horses had now been two days and nights without water, and could not feed; being so short-hobbled, they were almost in sight of the camp in the morning. From the top of a sandhill I saw that the eastern horizon was bounded by timbered ridges, and it was not very probable that the creek I was searching for could lie between us and them. Indeed, I concluded that the creek had exhausted itself, not far from where we had left it. The western horizon was now bounded by low ridges, continuous for many miles. I decided to make for our last camp on the creek, distant some five-and-twenty miles north-east. At five miles after starting, we came upon a mass of eucalypts which were not exactly gum-trees, though of that family, and I thought this might be the end of the exhausted creek channel, only the timber grew promiscuously on the tops of the sandhills, as in the lower ground between them. There was no appearance of any flow of water ever having passed by these trees, and indeed they looked more like gigantic mallee-trees than gums, only that they grew separately. They covered a space of about half a mile wide. From here I saw that some ridges were right before me, at a short distance, but where our line of march would intersect them they seemed so scrubby and stony I wished to avoid them. At one point I discerned a notch or gap. The horses were now very troublesome to drive, the poor creatures being very bad with thirst. I turned on the bearing that would take me back to

the old creek, which seemed the only spot in this desolate region where water could be found, and there we had to dig to get it. At one place on the ridges before us appeared a few pine-trees (*Callitris*) which enliven any region they inhabit, and there is usually water in their neighbourhood. The rocks from which the pines grew were much broken; they were yet, however, five or six miles away. We travelled directly towards them, and upon approaching, I found the rocks upheaved in a most singular manner, and a few gum-trees were visible at the foot of the ridge. I directed Carmichael and Robinson to avoid the stones as much as possible, while I rode over to see whether there was a creek or any other place where water might be procured. On approaching the rocks at the foot of the ridge, I found several enormous overhanging ledges of sandstone, under which the natives had evidently been encamped long and frequently; and there was the channel of a small watercourse scarcely more than six feet wide. I rode over to another overhanging ledge and found it formed a verandah wide enough to make a large cave; upon the walls of this, the natives had painted strange devices of snakes, principally in white; the children had scratched imperfect shapes of hands with bits of charcoal. The whole length of this cave had frequently been a large encampment. Looking about with some hopes of finding the place where these children of the wilderness obtained water, I espied about a hundred yards away, and on the opposite side of the little glen or valley, a very peculiar-looking crevice between two huge blocks of sandstone, and apparently not more than a yard wide.

I rode over to this spot, and to my great delight found a most excellent little rock tarn, of nearly an oblong shape, containing a most welcome and opportune supply of the fluid I was so anxious to discover. Some green slime rested on a portion of the surface, but the rest was all clear and pure water. My horse must have thought me mad, and any one who had seen me might have thought I had suddenly espied some basilisk, or cockatrice, or mailed saurian; for just as the horse was preparing to dip his nose in the water he so greatly wanted, I turned him away and made him gallop off after his and my companions, who were slowly passing away from this liquid prize. When I hailed, and overtook them, they could scarcely believe that our wants were to be so soon and so agreeably relieved. There was abundance of water for all our requirements here, but the approach was so narrow that only two horses could drink at one time, and we had great difficulty in preventing some of the horses from precipitating themselves, loads and all, into the inviting fluid. No one who has not experienced it, can imagine the pleasure which the finding of such a treasure confers on the thirsty, hungry, and weary traveller; all his troubles for the time are at an end. Thirst, that dire affliction that besets the wanderer in the Australian wilds, at last is quenched; his horses, unloaded, are allowed to roam and graze and drink at will, free from the encumbrance of hobbles, and the traveller's other appetite of hunger is also at length appeased, for no matter what food one may carry, it is impossible to eat it without water. This was truly a mental and bodily relief. After our hunger

had been satisfied I took a more extended survey of our surroundings, and found that we had dropped into a really very pretty little spot.

Low sandstone hills, broken and split into most extraordinary shapes, forming huge caves and caverns, that once no doubt had been some of the cavernous depths of the ocean, were to be seen in every direction; little runnels, with a few gum-trees upon them, constituted the creeks. *Callitris* or cypress pines, ornamented the landscape, and a few blood-wood or red gum-trees also enlivened the scene. No porcupine, but real green grass made up a really pretty picture, to the explorer at least. This little spot is indeed an oasis. I had climbed high hills, traversed untold miles of scrub, and gone in all directions to try and pick up the channel of a wretched dry creek, when all of a sudden I stumbled upon a perfect little paradise. I found the dimensions of this little tarn are not very large, nor is the quantity of water in it very great, but untouched and in its native state it is certainly a permanent water for its native owners. It has probably not been filled since last January or February, and it now contains amply sufficient water to enable it to last until those months return, provided that no such enormous drinkers as horses draw upon it; in that case it might not last a month. I found the actual water was fifty feet long, by eight feet wide, and four feet deep; the rocks in which the water lies are more than twenty feet high. The main ridges at the back are between 200 and 300 feet high. The native fig-tree (*Ficus orbicularis*) grows here most luxuriantly; there are several of them in full fruit, which is delicious when

thoroughly ripe. I had no thought of deserting this welcome little spot for a few days. On the following morning Mr. Carmichael and I loaded a pack-horse with water and started back into the scrub to where we left the little mare the day before yesterday. With protractor and paper I found the spot we left her at bore from this place south 70° west, and that she was now not more than thirteen or fourteen miles away, though we had travelled double the distance since we left her. We therefore travelled upon that bearing, and at thirteen and a half miles we cut our former tract at about a quarter of a mile from where we left the mare. We soon picked up her track and found she had wandered about a mile, although hobbled, from where we left her. We saw her standing, with her head down, under an oak tree truly distressed. The poor little creature was the picture of misery, her milk was entirely gone—she was alive, and that was all that could be said of her. She swallowed up the water we brought with the greatest avidity; and I believe could have drank as much as a couple of camels could have carried to her. We let her try to feed for a bit with the other three horses, and then started back for the tarn. On this line we did not intersect any of the eucalyptus timber we had passed through yesterday. The mare held up very well until we were close to the camp, when she gave in again; but we had to somewhat severely persuade her to keep moving, and at last she had her reward by being left standing upon the brink of the water, where she was [like Cyrus when Queen Thomeris had his head cut off into a receptacle filled with blood] enabled to drink her fill.

In the night heavy storm-clouds gathered o'er us, and vivid lightnings played around the rocks near the camp: a storm came up and seemed to part in two, one half going north and the other south; but just before daybreak we were awakened by a crash of thunder that seemed to split the hills; and we heard the wrack as though the earth and sky would mingle; but only a few drops of rain fell, too little to leave any water, even on the surface of the flat rocks close to the camp. This is certainly an extraordinary climate. I do not believe a week ever passes without a shower of rain, but none falls to do any good: one good fall in three or even six months, beginning now, would be infinitely more gratifying, to me at least; but I suppose I must take it as I find it. The rain that does fall certainly cools the atmosphere a little, which is a partial benefit.

I found several more caves to-day up in the rocks, and noticed that the natives here have precisely the same method of ornamenting them as the natives of the Barrier Range and mountains east of the Darling. You see the representation of the human hand here, as there, upon the walls of the caves: it is generally coloured either red or black. The drawing is done by filling the mouth with charcoal powder if the device is to be black, if red with red ochre powder, damping the wall where the mark is to be left, and placing the palm of the hand against it, with the fingers stretched out; the charcoal or ochre powder is then blown against the back of the hand; when it is withdrawn, it leaves the space occupied by the hand and fingers clean, while the surrounding portions of the wall are all black or red, as the case may be. One device represents

a snake going into a hole: the hole is actually in the rock, while the snake is painted on the wall, and the spectator is to suppose that its head is just inside the hole; the body of the reptile is curled round and round the hole, though its breadth is out of all proportion to its length, being seven or eight inches thick, and only two to three feet long. It is painted with charcoal ashes which had been mixed up with some animal's or reptile's fat. Mr. Carmichael left upon the walls a few choice specimens of the white man's art, which will help, no doubt, to teach the young native idea, how to shoot either in one direction or another.

To-day it rained in light and fitful showers, which, as usual, were of no use, except indeed to cause a heavy dew which wet all our blankets and things, for we always camp without tent or tarpaulin whenever it does not actually rain. The solar beams of morning soon evaporated the dew. To the W.S.W. the natives were hunting, and as usual burning the spinifex before them. They do not seem to care much for our company; for ever since we left the Glen of Palms, these cave-dwelling, reptile-eating Troglodytes have left us severely alone. As there was a continuous ridge for miles to the westward, I determined to visit it; for though this little tarn, that I had so opportunely found, was a most valuable discovery, yet the number of horses I had were somewhat rapidly reducing the water supply, and I could plainly perceive that, with such a strain upon it, it could not last much more than a month, if that; I must therefore endeavour to find some other watered place, where next I may remove.

On the morning of the 7th October it was evident

a warm day was approaching. Mr. Carmichael and I started away to a small rocky eminence, which bore a great resemblance to the rocks immediately behind this camp, and in consequence we hoped to find more water there. The rocks bore south 62° west from camp; we travelled over sandhills, through scrub, triodia, and some casuarina country, until we reached the hill in twenty miles. It was composed of broken red sandstone rock, being isolated from the main ridge; other similar heaps were in the vicinity.

We soon discovered that there was neither water nor any place to hold it. Having searched all about, we went away to some other ridges, with exactly the same result; and at dark we had to encamp in the scrubs, having travelled forty miles on fifty courses. The thermometer had stood at 91° in the shade, where we rested the horses in the middle of the day. Natives' smokes were seen mostly round the base of some other ridges to the south-east, which I determined to visit to-morrow; as the fires were there, natives must or should be also; and as they require water to exist, we might find their hidden springs. It seemed evident that only in the hills or rocky reservoirs water could be found.

We slept under the shadow of a hill, and mounted to its top in the morning. The view was anything but cheering; ridges, like islands in a sea of scrub, appeared in connection with this one; some distance away another rose to the south-east. We first searched those near us, and left them in disgust, for those farther away. At eight or nine miles we reached the latter, and another fruitless search was gone through. We then went to another and

another, walking over the stones and riding through the scrubs. We found some large rocky places, where water might remain for many weeks, after being filled; but when such an occurrence ever had taken place, or ever would take place again, it was impossible to tell. We had wandered into and over such frightful rocky and ungodly places, that it appeared useless to search farther in such a region, as it seemed utterly impossible for water to exist in it all. Nevertheless, the natives were about, burning, burning, ever burning; one would think they were of the fabled salamander race, and lived on fire instead of water. The fires were starting up here and there around us in fresh and narrowing circles; it seems as though the natives can only get water from the hollow spouts of some trees and from the roots of others, for on the surface of the earth there is none. We saw a few rock wallaby, a different variety to the scrub or open sandhill kinds. Bronze-winged pigeons also were occasionally startled as we wandered about the rocks; these birds must have water, but they never drink except at sundown, and occasionally just before sunrise, then they fly so swiftly, with unerring precision, on their filmy wings, to the place they know so well will supply them; and thirty, forty, or fifty miles of wretched scrub, that would take a poor human being and his horse a whole day to accomplish, are passed over with the quickness of thought. The birds we flushed up would probably dart across the scrubs to the oasis we had so recently found. Our horses were getting bad and thirsty; the day was warm; 92° in the shade, in thirst and wretchedness, is hot enough for any poor animal or man

either. But man enters these desolate regions to please himself or satisfy his desire for ambition to win for himself—what? a medal, a record, a name? Well, yes, dear reader, these may enter into his thoughts as parts of a tangible recognition of his labours; but a nobler idea also actuates him—either to find, for the benefit of those who come after him, some beauteous spots where they may dwell; or if these regions can't supply them, of deserts only can he tell; but the unfortunate lower is forced into such frightful privations to please the higher animals. We now turned up towards the north-west, amongst scrubs, sandhills, and more stony ridges, where another fruitless search ended as before. Now to the east of us rose a more continuous ridge, which we followed under its (base) foot, hoping against hope to meet some creek or gully with water. Gullies we saw, but neither creeks or water. We continued on this line till we struck our outgoing track, and as it was again night, we encamped without water. We had travelled in a triangle. To-day's march was forty-three miles, and we were yet twenty-nine from the tarn—apparently the only water existing in this extraordinary and terrible region.

In one or two places to-day, passing through some of the burning scrubs and spinifex, we had noticed the fresh footprints of several natives. Of course they saw us, but they most perseveringly shunned us, considering us probably far too low a type of animal for their society. We also saw to-day dilapidated old yards, where they had formerly yarded emu or wallaby, though we saw none of their wurleys, or mymys, or gunyahs, or

whatever name suits best. The above are all names of the same thing, of tribes of natives, of different parts of the Continent—as *Lubra*, *Gin*, *Nungo*, &c., are for woman. No doubt these natives carry water in wallaby or other animals' skins during their burning hunts, for they travel great distances in a day, walking and burning, and picking up everything alive or roasted as they go, and bring the game into the general camp at night. We passed through three different lines of conflagrations to-day. I only wish I could catch a native, or a dozen, or a thousand; it would be better to die or conquer in a pitched battle for water, than be for ever fighting these direful scrubs and getting none. The following morning the poor horses looked wretched in the extreme; to remain long in such a region without water is very severe upon them; it is a wonder they are able to carry us so well. From this desert camp our depot bore north 40° east. The horses were so exhausted that, though we started early enough, it was late in the afternoon when we had accomplished the twenty-nine or thirty miles that brought us at last to the tarn. Altogether they had travelled 120 miles without a drink. The water in the tarn had evidently shrunk. The day was warm —thermometer 92° in shadiest place at the depot. A rest after the fatigue of the last few days was absolutely necessary before we made a fresh attempt in some new locality.

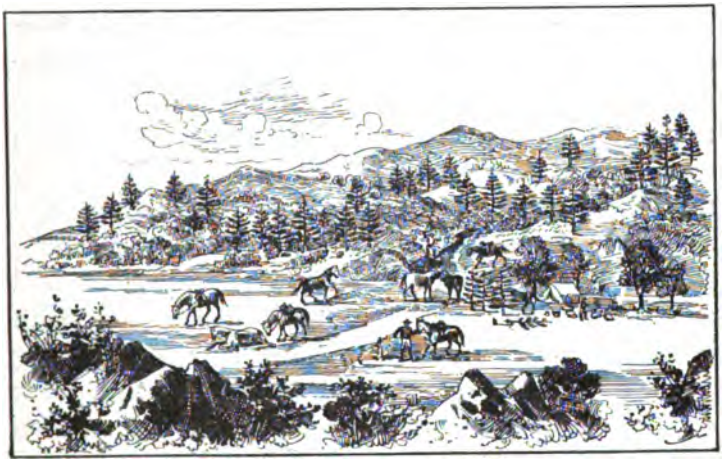
It is only partly a day's rest—for I, at least, have plenty to do; but it is a respite, and we can drink our fill of water. And oh! what a pleasure, what a luxury that is! How few in civilisation will drink water when they can get anything else. Let them

try going without, in the explorer's sense of the expression, and then see how they will long for it! The figs on the largest tree, near the cave opposite, are quite ripe and falling; neither Carmichael nor Robinson care for them, but I eat a good many, though I fancy they are not quite wholesome for a white man's digestive organs; at first, they act as an aperient, but subsequently have an opposite effect. I called this charming little oasis Glen Edith, after one of my nieces. I marked two gum-trees at this camp, one [Giles 24], and another [Glen Edith 24. Oct. 9, 72.]. Mr. Carmichael and Robinson also marked one with their names. The receptacle in which I found the water I have called the Tarn of Auber, after Allan Poe's beautiful lines, in which that name appears, as I thought them appropriate to the spot. He says:—

> "It was in the drear month of October,
> The leaves were all crispèd and sere,
> Adown by the dank Tarn of Auber,
> In the misty mid regions of Weir."

If these are not the misty mid regions of Weir, I don't know where they are. There are two heaps of broken sandstone rocks, with cypress pines growing about them, which will always be a landmark for any future traveller who may seek the wild seclusion of these sequestered caves. The bearing of the water from them is south 51° west, and it is about a mile on that bearing from the northern heap; that with a glance at my map would enable any ordinary bushman to find it. I sowed a quantity of vegetable seeds here, also seeds of the Tasmanian blue gum-tree, some wattles and clover, rye and

prairie-grass. In the bright gleams of the morning, in this Austral land of dawning, it was beautiful to survey this little spot; everything seemed in miniature here—little hills, little glen, little trees, little tarn, and little water. Though the early mornings were cool and pleasant, the days usually turned out



GLEN EDITH.

just the opposite. On the 11th Mr. Carmichael and I got fresh horses, and I determined to try the country more to the south, and leaving Alec Robinson and the little dog Monkey again in charge of glen, and camp, and tarn, away we went in that direction. At first we travelled over sandhills, timbered with the fine Casuarina decaisneana, or desert oak; we then met some eucalyptus-trees growing promiscuously on the tops of the sandhills, as well as in the hollows. At twelve miles we rode over a low ridge; the country in advance appeared no more inviting than that already travelled. Descending to the lower ground, however, we entered

upon a bit of better country, covered with green grass, there was also some thick mulga scrub upon it. Here we saw a few kangaroos and emus, but could not get a shot at them. Beyond this we entered timbered country again, the desert oak being quite a desert sign. In a few miles farther another ridge fronted us, and a trifle on our left lay a hollow, or valley, which seemed to offer the best road, but we had to ride through some very scrubby gullies, stony, and covered with spinifex. It eventually formed the valley of a small creek, which soon had a few gum-trees on it. After following this about four miles, we saw a place where the sand was damp, and got some water by scratching with our hands. The supply was insufficient, and we went farther down and found a small hole with just enough for our three horses, and now, having found a little, we immediately wanted to find a great deal more. At twenty-six miles from the tarn we found a place where the natives had dug, and there seemed a good supply, so we camped there for the night. The grass along this creek was magnificent, being about eight inches high and beautifully green, the old grass having been burnt some time ago. It was a most refreshing sight to our triodia-accustomed eyes; at twelve o'clock the thermometer stood at 94° in the shade. The trend of this little creek, and the valley in which it exists, is to the south-east. Having found water here, we were prepared to find numerous traces of natives, and soon saw old camps and wurleys, and some recent footmarks. I was exceedingly gratified to find this water, as I hoped it would eventually enable me to get out of the wretched bed of sand and scrub into which we

had been forced since leaving the Finke, and which evidently occupies such an enormous extent of territory. Our horses fed all night close at hand, and we were in our saddles early enough. I wanted to go west, and the further west the better; but we decided to follow the creek and see what became of it, and if any more waters existed in it. We found that it meandered through a piece of open plain, splendidly grassed, and delightful to gaze upon. How beautiful is the colour of green! What other colour could even Nature have chosen with which to embellish the face of the earth? How, indeed, would red, or blue, or yellow pall upon the eye! But green, emerald green, is the loveliest of all Nature's hues. The soil of this plain was good and firm. The creek had now worn a deep channel, and in three miles from where we camped we came upon the top of a high red bank, with a very nice little water-hole underneath. There was abundance of water for 100 or 200 horses for a month or two, and plenty more in the sand below. Three other ponds were met lower down, and I believe water can always be got by digging. We followed the creek for a mile or two farther, and found that it soon became exhausted, as casuarina and triodia sandhills environed the little plain, and after the short course of scarcely ten miles, the little creek became swallowed up by those water-devouring monsters. This was named Laurie's Creek.

There was from 6000 to 10,000 acres of fine grass land in this little plain, and it was such a change from the sterile, triodia, and sandy country outside it, I could not resist calling it the Vale of Tempe. We left the exhausted creek, and

in ten miles from our camp we entered on and descended into another valley, which was open, but had no signs of any water. From a hill I saw some ridges stretching away to the south and south-west, and to the west also appeared broken ridges. I decided to travel about south-west, as it appeared the least stony. In eight miles we had met the usual country. At eighteen we turned the horses out for an hour on a burnt patch, during which the thermometer stood at 94° in the shade; we then left for some ridges through a small gap or pass between two hills, which formed into a small creek-channel. As it was now dark, we camped near the pass, without water, having travelled thirty-five miles. In the morning we found the country in front of us to consist of a small well-grassed plain, which was as green, as at the last camp. The horses rambled in search of water up into a small gully, which joins this one; it had a few gum-trees on it. We saw a place where the natives had dug for water, but not very recently. We scratched out a lot of sand with our hands, and some water percolated through, but the hole was too deep to get any out for the horses, as we had no means of removing the sand, having no shovel. Upon searching farther up the gully we found some good-sized rock-holes, but unfortunately they were all dry. We next ascended a hill to view the surrounding country, and endeavour to discover if there was any feature in any direction to induce us to visit, and where we might find a fresh supply of water. There were several fires raging in various directions upon the southern horizon, and the whole atmosphere was thick with a smoky haze. After

a long and anxious scrutiny through the smoke far, very far away, a little to the west of south, I descried the outline of a range of hills, and right in the smoke of one fire an exceedingly high and abruptly-ending mountain loomed. To the south-eastwards other ranges appeared; they seemed to lie nearly north and south.

The high mountain was very remote; it must be at least seventy or seventy-five miles away, with nothing apparently between but a country similar to that immediately before and behind us; that is to say, sandhills and scrub. I was, however, delighted to perceive any feature for which to make as a medium point, and which might help to change the character and monotony of the country over which I have been wandering so long. I thought it not improbable that some extensive watercourses may proceed from these new ranges which might lead me at last away to the west. For the present, not being able to get water at this little glen, although I believe a supply can be obtained with a shovel, I decided to return to the tarn at Glen Edith, which was now fifty-five miles away, remove the camp to the newly-found creek at the Vale of Tempe, and then return here, open out this watering place with a shovel, and make a straight line for the newly-discovered high mountain to the south. By the time these conclusions had been arrived at, and our wanderings about the rocks completed, it was nearly midday; and as we had thirty-five miles to travel to get back to the creek, it took us all the remainder of the day to do so; and it was late when we again encamped upon its friendly banks. The thermometer to-day had stood at 96°. We

now had our former tracks to return upon to the tarn. The morning was cool and pleasant, and we arrived at the depot early. Alec Robinson informed me that he believed some natives had been prowling about the camp in our absence, as the little dog had been greatly perturbed during two of the nights we were away. It was very possible that some natives had come to the tarn for water, as well as to spy out who and what and how many vile and wicked intruders had found their way into this secluded spot; but as they must have walked about on the rocks they left no traces of their visit.

Oct. 15th.—This morning's meal was to be the last we should make at our friendly little tarn, whose opportune waters, ripe figs, miniature mountains, and imitation fortresses, will long linger in my recollection. Opposite the rocks in which the water lies, and opposite the camp also, is a series of small fort-like, stony eminences, standing apart; these form one side of the glen; the other is formed by the rocks at the base of the main ridge, where the camp and water are situated. This really was a most delightful little spot, though it certainly had one great nuisance, which is almost inseparable from pine-trees, namely ants. These horrid pests used to crawl into and over everything and everybody, by night as well as by day. The horses took their last drink at the little sweet-watered tarn, and we moved away for our new home to the south.

CHAPTER VI.

FROM 15TH OCTOBER, 1872, TO 31ST JANUARY, 1873.

Move the camp to new creek—Revisit the pass—Hornets and diamond birds—More ornamented caves—Map study—Start for the mountain—A salt lake—A barrier—Brine ponds—Horses nearly lost—Exhausted horses—Follow the lake—A prospect wild and weird—Mount Olga—Sleepless animals—A day's rest—A National Gallery—Signal for natives—The lake again—High hill westward—Mount Unapproachable—McNicol's range—Heat increasing—Sufferings and dejection of the horses—Worrill's Pass—Glen Thirsty—Food all gone—Review of our situation—Horse staked—Pleasure of a bath—A journey eastward—Better regions—A fine creek—Fine open country—King's Creek—Carmichael's Crag—Penny's Creek—Stokes's Creek—A swim—Bagot's Creek—Termination of the range—Trickett's Creek—George Gill's range—Petermann's Creek—Return—Two natives—A host of aborigines—Break up the depot—Improvement in the horses—Carmichael's resolve—Levi's Range—Follow the Petermann—Enter a glen—Up a tree—Rapid retreat—Escape glen—A new creek—Fall over a bank—Middleton's Pass—Good country—Friendly natives—Rogers's Pass—Seymour's Range—A fenced-in water-hole—Briscoe's Pass—The Finke—Resight the pillar—Remarks on the Finke—Reach the telegraph line—Native boys—I buy one—The Charlotte Waters—Colonel Warburton—Arrive at the Peake—News of Dick—Reach Adelaide.

IT was late in the day when we left Glen Edith, and consequently very much later by the time we had unpacked all the horses at the end of our twenty-nine mile stage; it was then too dark to reach the

lower or best water-holes. To-day there was an uncommon reversal of the usual order in the weather —the early part of the day being hot and sultry, but towards evening the sky became overcast and cloudy, and the evening set in cold and windy. Next morning we found that one horse had staked himself in the coronet very severely, and that he was quite lame. I got some mulga wood out of the wound, but am afraid there is much still remaining. This wood, used by the natives for spear-heads, contains a virulent poisonous property, and a spear or stake wound with it is very dangerous. The little mare that foaled at Mount Udor, and was such an object of commiseration, has picked up wonderfully, and is now in good working condition. I have another mare, Marzetti, soon to foal; but as she is fat, I do not anticipate having to destroy her progeny. We did not move the camp to-day. Numbers of bronze-winged pigeons came to drink, and we shot several of them. The following day Mr. Carmichael and I again mounted our horses, taking with us a week's supply of rations, and started off intending to visit the high mountain seen at our last farthest point. We left Alec Robinson again in charge of the camp, as he had now got quite used to it, and said he liked it. He always had my little dog Monkey for a companion. When travelling through the spinifex we carried the little animal. He is an excellent watchdog, and not a bird can come near the camp without his giving warning. Alec had plenty of firearms and ammunition to defend himself with, in case of an attack from the natives. This, however, I did not [illegible]pate; indeed, I wished they would come (in a

friendly way), and had instructed Alec to endeavour to detain one or two of them until my return if they should chance to approach. Alec was a very strange, indeed disagreeable and sometimes uncivil, sort of man; he had found our travels so different from his preconceived ideas, as he thought he was going on a picnic, and he often grumbled and declared he would like to go back again. However, to remain at the camp, with nothing whatever to do and plenty to eat, admirably suited him, and I felt no compunction in leaving him by himself. I would not have asked him to remain if I were in any way alarmed at his position.

We travelled now by a slightly different route, more easterly, as there were other ridges in that direction, and we might find another and a better watering place than that at the pass. It is only at or near ridges in this strange region that the traveller can expect to find water, as in the sandy beds of scrub intervening between them, water would simply sink away. We passed through some very thick mulga, which, being mostly dead, ripped our pack-bags, clothes, and skin, as we had continually to push the persistent boughs and branches aside to penetrate it. We reached a hill in twenty miles, and saw at a glance that no favourable signs of obtaining water existed, for it was merely a pile of loose stones or rocks standing up above the scrubs around. The view was desolate in the extreme; we had now come thirty miles, but we pushed on ten miles for another hill, to the south-east, and after penetrating the usual scrub, we reached its base in the dark, and camped. In the morning I climbed the hill, but no water could be seen or

procured. This hill was rugged with broken granite boulders, scrubby with mulga and bushes, and covered with triodia to its summit. To the south a vague and strange horizon was visible; it appeared flat, as though a plain of great extent existed there, but as the mirage played upon it, I could not make anything of it. My old friend the high mountain loomed large and abrupt at a great distance off, and it bore 8° 30′ west from here, too great a distance for us to proceed to it at once, without first getting water for our horses, as it was possible that no water might exist even in the neighbourhood of such a considerable mountain. The horses rambled in the night; when they were found we started away for the little pass and glen where we knew water was to be got, and which was now some thirty miles away to the west-north-west. We reached it somewhat late. The day was hot, thermometer 98° in shade, and the horses very thirsty, but they could get no water until we had dug a place for them. Although we had reached our camping ground our day's work was only about to commence. We were not long in obtaining enough water for ourselves, such as it was—thick and dirty with a nauseous flavour—but first we had to tie the horses up, to prevent them jumping in on us. We found to our grief that but a poor supply was to be expected, and though we had not to dig very deep, yet we had to remove an enormous quantity of sand, so as to create a sufficient surface to get water to run in, and had to dig a tank twenty feet long by six feet deep, and six feet wide at the bottom, though at the top it was much wider. I may remark—and what I now say applies to almost every other water

I ever got by digging in all my wanderings—that whenever we commenced to dig, a swarm of large and small red hornets immediately came around us, and, generally speaking, diamond birds (*Amadina*) would also come and twitter near, and when water was got, would drink in great numbers. With regard to the hornets, though they swarmed round our heads and faces in clouds, no one was ever stung by them, nature and instinct informing them that we were their friends. We worked and waited for two hours before one of our three horses could obtain a drink. The water came so slowly in that it took nearly all the night before the last animal's thirst was assuaged, as by the time the third got a drink, the first was ready to begin again, and they kept returning all through the night. We rested our horses here to-day to allow them to fill themselves with food, as no doubt they will require all the support they can get to sustain them in their work before we reach the distant mountain. We passed the day in enlarging the tank, and were glad to find that, though no increase in the supply of water was observable, still there seemed no diminution, as now a horse could fill himself at one spell. We took a stroll up into the rocks and gullies of the ridges, and found a Troglodytes' cave ornamented with the choicest specimens of aboriginal art. The rude figures of snakes were the principal objects, but hands, and devices for shields were also conspicuous. One hieroglyph was most striking; it consisted of two Roman numerals—a V and an I, placed together and representing the figure VI; they were both daubed over with spots, and were painted with red ochre. Several large rock-holes

were seen, but they had all long lain dry. A few cypress pines grew upon the rocks in several places. The day was decidedly hot; the thermometer stood at 100° in the shade at three o'clock, and we had to fix up a cloth for an awning to get sufficient shade to sit under. Our only intellectual occupation was the study of a small map of Australia, showing the routes of the Australian explorers. How often we noted the facility with which other and more fortunate travellers dropped upon fine creeks and large rivers. We could only envy them their good fortune, and hope the future had some prizes in store for us also. The next morning, after taking three hours to water our horses, we started on the bearing of the high mount, which could not be seen from the low ground, the bearing being south 18° west. We got clear of the low hills of the glen, and almost immediately entered thick scrubs, varied by high sandhills, with casuarina and triodia on them. At twelve miles I noticed the sandhills became denuded of timber, and on our right a small and apparently grassy plain was visible; I took these signs as a favourable indication of a change of country. At three miles farther we had a white salt channel right in front of us, with some sheets of water in it; upon approaching I found it a perfect bog, and the water brine itself. We went round this channel to the left, and at length found a place firm enough to cross. We continued upon our course, and on ascending a high sandhill I found we had upon our right hand, and stretching away to the west, an enormous salt expanse, and it appeared as if we had hit exactly upon the eastern edge of it, at which we rejoiced greatly for a time. Continuing

on our course over treeless sandhills for a mile or two, we found we had not escaped this feature quite so easily, for it was now right in our road; it appeared, however, to be bounded by sandhills a little more to the left, eastwards; so we went in that direction, but at each succeeding mile we saw more and more of this objectionable feature; it continually pushed us farther and farther to the east, until, having travelled about fifteen miles, and had it constantly on our right, it swept round under some more sandhills which hid it from us, till it lay east and west right athwart our path. It was most perplexing to me to be thus confronted by such an obstacle. We walked a distance on its surface, and to our weight it seemed firm enough, but the instant we tried our horses they almost disappeared. The surface was dry and encrusted with salt, but brine spurted out at every step the horses took. We dug a well under a sandhill, but only obtained brine.

This obstruction was apparently six or seven miles across, but whether what we took for its opposite shores were islands or the main, I could not determine. We saw several sandhill islands, some very high and deeply red, to which the mirage gave the effect of their floating in an ocean of water. Farther along the shore eastwards were several high red sandhills; to these we went and dug another well and got more brine. We could see the lake stretching away east or east-south-east as far as the glasses could carry the vision. Here we made another attempt to cross, but the horses were all floundering about in the bottomless bed of this infernal lake before we could look round. I made

sure they would be swallowed up before our eyes. We were powerless to help them, for we could not get near owing to the bog, and we sank up over our knees, where the crust was broken, in hot salt mud. All I could do was to crack my whip to prevent the horses from ceasing to exert themselves, and although it was but a few moments that they were in this danger, to me it seemed an eternity. They staggered at last out of the quagmire, heads, backs, saddles, everything covered with blue mud, their mouths were filled with salt mud also, and they were completely exhausted when they reached firm ground. We let them rest in the shade of some quandong trees, which grew in great numbers round about here. From Mount Udor to the shores of this lake the country had been continually falling. The northern base of each ridge, as we travelled, seemed higher by many feet than the southern, and I had hoped to come upon something better than this. I thought such a continued fall of country might lead to a considerable watercourse or freshwater basin; but this salt bog was dreadful, the more especially as it prevented me reaching the mountain which appeared so inviting beyond.

Not seeing any possibility of pushing south, and thinking after all it might not be so far round the lake to the west, I turned to where we had struck the first salt channel, and resolved to try what a more westerly line would produce. The channel in question was now some fifteen miles away to the north-westward, and by the time we got back there the day was done and "the darkness had fallen from the wings of night." We had travelled nearly fifty

miles, the horses were almost dead; the thermometer stood at 100° in the shade when we rested under the quandongs. In the night blankets were unendurable. Had there been any food for them the horses could not eat for thirst, and were too much fatigued by yesterday's toil to go out of sight of our camping place. We followed along the course of the lake north of west for seven miles, when we were checked by a salt arm running north-eastwards; this we could not cross until we had gone up it a distance of three miles. Then we made for some low ridges lying west-south-west and reached them in twelve miles. There was neither watercourse, channel, nor rock-holes; we wandered for several miles round the ridges, looking for water, but without success, and got back on our morning's tracks when we had travelled thirty miles. From the top of these ridges the lake could be seen stretching away to the west or west-south-west in vast proportions, having several salt arms running back from it at various distances. Very far to the west was another ridge, but it was too distant for me to reach now, as to-night the horses would have been two nights without water, and the probability was they would get none there if they reached it. I determined to visit it, however, but I felt I must first return to the tank in the little glen to refresh the exhausted horses. From where we are, the prospect is wild and weird, with the white bed of the great lake sweeping nearly the whole southern horizon. The country near the lake consists of open sandhills, thickly bushed and covered with triodia; farther back grew casuarinas and mulga scrubs.

It was long past the middle of the day when I

descended from the hill. We had no alternative but to return to the only spot where we knew water was to be had; this was now distant twenty-one miles to the north-east, so we departed in a straight line for it. I was heartily annoyed at being baffled in my attempt to reach the mountain, which I now thought more than ever would offer a route out of this terrible region; but it seemed impossible to escape from it. I named this eminence Mount Olga, and the great salt feature which obstructed me Lake Amadeus, in honour of two enlightened royal patrons of science. The horses were now exceedingly weak; the bogging of yesterday had taken a great deal of strength out of them, and the heat of the last two days had contributed to weaken them (the thermometer to-day went up to 101° in shade). They could now only travel slowly, so that it was late at night when we reached the little tank. Fifty miles over such disheartening country to-day has been almost too much for the poor animals. In the tank there was only sufficient water for one horse; the others had to be tied up and wait their turns to drink, and the water percolated so slowly through the sand it was nearly midnight before they were all satisfied and begun to feed. What wonderful creatures horses are! They can work for two and three days and go three nights without water, but they can go for ever without sleep; it is true they do sleep, but equally true that they can go without sleeping. If I took my choice of all creation for a beast to guard and give me warning while I slept, I would select the horse, for he is the most sleepless creature Nature has made. Horses seem to know this; for if you should by

chance catch one asleep he seems very indignant either with you or himself.

It was absolutely necessary to give our horses a day's rest, as they looked so much out of sorts this morning. A quarter of the day was spent in watering them, and by that time it was quite hot, and we had to erect an awning for shade. We were overrun by ants, and pestered by flies, so in self-defence we took another walk into the gullies, revisited the aboriginal National Gallery of paintings and hieroglyphics, and then returned to our shade and our ants. Again we pored over the little German map, and again envied more prosperous explorers. The thermometer had stood at 101° in the shade, and the greatest pleasure we experienced that day was to see the orb of day descend. The atmosphere had been surcharged all day with smoke, and haze hung over all the land, for the Autochthones were ever busy at their hunting fires, especially upon the opposite side of the great lake; but at night the blaze of nearer ones kept up a perpetual light, and though the fires may have been miles away they appeared to be quite close. I also had fallen into the custom of the country, and had set fire to several extensive beds of triodia, which had burned with unabated fury; so brilliant, indeed, was the illumination that I could see to read by the light. I kindled these fires in hopes some of the natives might come and interview us, but no doubt in such a poorly watered region the native population cannot be great, and the few who do inhabit it had evidently abandoned this particular portion of it until rains should fall and enable them to hunt while water remained in it.

Last night, the 23rd October, was sultry, and blankets utterly useless. The flies and ants were wide awake, and the only thing we could congratulate ourselves upon, was the absence of mosquitoes. At dawn the thermometer stood at 70°, and a warm breeze blew gently from the north. The horses were found early, but as it took nearly three hours to water them we did not leave the glen till past eight o'clock. This time I intended to return to the ridges we had last left, and which now bore a little to the west of south-west, twenty-one miles away. We made a detour so as to inspect some other ridges near where we had been last. Stony and low ridgy ground was first met, but the scrubs were all around. At fifteen miles we came upon a little firm clayey plain with some salt bushes, and it also had upon it some clay pans, but they had long been dry. We found the northern face of the ridges just as waterless as the southern, which we had previously searched. The far hills or ridges to the west, which I now intended to visit, bore nearly west. Another salt bush plain was next crossed; this was nearly three miles long. We now gave the horses an hour's spell, the thermometer showing 102° in the shade; then, re-saddling, we went on, and it was nine o'clock at night when we found ourselves under the shadows of the hills we had steered for, having them on the north of us.

I searched in the dark, but could find no feature likely to supply us with water; we had to encamp in a nest of triodia without any water, having travelled forty-eight miles through the usual kind of country that occupies this region's space. At daylight the thermometer registered 70°, that being the

lowest during the night. On ascending the hill above us, there was but one feature to gaze upon—the lake still stretching away, not only in undiminished, but evidently increasing size, towards the west and north-west. Several lateral channels were thrown out from the parent bed at various distances, some broad and some narrow. A line of ridges, with one hill much more prominent than any I had seen about this country, appeared close down upon the shores of the lake; it bore from the hill I stood upon south 68° west, and was about twenty miles off. A long broad salt arm, however, ran up at the back of it between it and me, but just opposite there appeared a narrow place that I thought we might cross to reach it.

The ridge I was on was red granite, but there was neither creek nor rock-hole about it. We now departed for the high hill westward, crossing a very boggy salt channel with great difficulty, at five miles; in five more we came to the arm. It appeared firm, but unfortunately one of the horses got frightfully bogged, and it was only by the most frantic exertions that we at length got him out. The bottom of this dreadful feature, if it has a bottom, seems composed entirely of hot, blue, briny mud. Our exertions in extricating the horse made us extremely thirsty; the hill looked more inviting the nearer we got to it, so, still hoping to reach it, I followed up the arm for about seven miles in a north-west direction. It proved, however, quite impassable, and it seemed utterly useless to attempt to reach the range, as we could not tell how far we might have to travel before we could get round the arm. I believe it continues in a semicircle and

joins the lake again, thus isolating the hill I wished to visit. This now seemed an island it was impossible to reach. We were sixty-five miles away from the only water we knew of, with no likelihood of any nearer; there might certainly be water at the mount I wished to reach, but it was unapproachable, and I called it by that name; no doubt, had I been able to reach it, my progress would still have been impeded to the west by the huge lake itself. I could get no water except brine upon its shores, and I had no appliances to distil that; could I have done so, I would have followed this feature, hideous as it is, as no doubt sooner or later some watercourses must fall into it either from the south or the west. We were, however, a hundred miles from the camp, with only one man left there, and sixty-five from the nearest water. I had no choice but to retreat, baffled, like Eyre with his Lake Torrens in 1840, at all points. On the southern shore of the lake, and apparently a very long way off, a range of hills bore south 30° west; this range had a pinkish appearance and seemed of some length. Mr. Carmichael wished me to call it McNicol's Range, after a friend of his, and this I did. We turned our wretched horses' heads once more in the direction of our little tank, and had good reason perhaps to thank our stars that we got away alive from the lone unhallowed shore of this pernicious sea. We kept on twenty-eight miles before we camped, and looked at two or three places, on the way ineffectually, for some signs of water, having gone forty-seven miles; thermometer in shade 103°, the heat increasing one degree a day for several days. When we camped we were hungry,

thirsty, tired, covered all over with dry salt mud; so that it is not to be wondered at if our spirits were not at a very high point, especially as we were making a forced retreat. The night was hot, cloudy, and sultry, and rain clouds gathered in the sky. At about 1 A.M. the distant rumblings of thunder were heard to the west-north-west, and I was in hopes some rain might fall, as it was apparently approaching; the thunder was not loud, but the lightning was most extraordinarily vivid; only a few drops of rain fell, and the rest of the night was even closer and more sultry than before.

Ere the stars had left the sky we were in our saddles again; the horses looked most pitiable objects, their flanks drawn in, the natural vent was distended to an open and extraordinary cavity; their eyes hollow and sunken, which is always the case with horses when greatly in want of water. Two days of such stages will thoroughly test the finest horse that ever stepped. We had thirty-six miles yet to travel to reach the water. The horses being so jaded, it was late in the afternoon when they at last crawled into the little glen; the last few miles being over stones made the pace more slow. Not even their knowledge of the near presence of water availed to inspirit them in the least; probably they knew they would have to wait for hours at the tank, when they arrived, before their cravings for water could be appeased. The thermometer to-day was 104° in the shade. When we arrived the horses had walked 131 miles without a drink, and it was no wonder that the poor creatures were exhausted. When one horse had drank what little water there was, we had to re-dig the tank, for the

wind or some other cause had knocked a vast amount of the sand into it again. Some natives also had visited the place while we were away, their fresh tracks were visible in the sand around, and on the top of the tank. They must have stared to see such a piece of excavation in their territory. When the horses did get water, two of them rolled, and groaned, and kicked, so that I thought they were going to die; one was a mare, she seemed the worst, another was a strong young horse which had carried me well, the third was my old favourite riding-horse; this time he had only carried the pack, and was badly bogged; he was the only one that did not appear distressed when filled with water, the other two lay about in evident pain until morning. About the middle of the night thunder was again heard, and flash after flash of even more vivid lightnings than that of the previous night enlightened the glen; so bright were the flashes, being alternately fork and sheet lightning, that for nearly an hour the glare never ceased. The thunder was much louder than last night's, and a slight mizzling rain for about an hour fell. The barometer had fallen considerably for the last two days, so I anticipated a change. The rain was too slight to be of any use; the temperature of the atmosphere, however, was quite changed, for by the morning the thermometer was down to 48°.

The horses were not fit to travel, so we had to remain, with nothing to do, but consult the little map again, and lay off my position on it. My farthest point I found to be in latitude 24° 38′ and longitude 130°. For the second time I had reached nearly the same meridian. I had been repulsed at

both points, which were about a hundred miles apart, in the first instance by dry stony ranges in the midst of dense scrubs, and in the second by a huge salt lake equally destitute of fresh water. It appears to me plain enough that a much more northerly or else more southerly course must be pursued to reach the western coast, at all events in such a country, it will be only by time and perseverance that any explorer can penetrate it. I think I remarked before that we entered this little glen through a pass about half-a-mile long, between two hills of red sandstone. I named this Worrill's Pass, after another friend of Mr. Carmichael. The little glen in which we dug out the tank I could only call Glen Thirsty, for we never returned to it but ourselves and our horses, were choking for water. Our supply of rations, although we had eked it out with the greatest possible economy, was consumed, for we brought only a week's supply, and we had now been absent ten days from home, and we should have to fast all to-morrow, until we reached the depot; but as the horses were unable to carry us, we were forced to remain.

During the day I had a long conversation with Mr. Carmichael upon our affairs in general, and our stock of provisions in particular; the conclusion we arrived at was, that having been nearly three months out, we had not progressed so far in the time as we had expected. We had found the country so dry that until rains fell, it seemed scarcely probable that we should be able to penetrate farther to the west, and if we had to remain in depot for a month or two, it was necessary by some means to economise our stores, and the only way to do so was to dispense

with the services of Alec Robinson. It would be necessary, of course, in the first place, to find a creek to the eastward, which would take him to the Finke, and by the means of the same watercourse we might eventually get round to the southern shores of Lake Amadeus, and reach Mount Olga at last.

In our journey up the Finke two or three creeks had joined from the west, and as we were now beyond the sources of any of these, it would be necessary to discover some road to one or the other before Robinson could be parted with. By dispensing with his services, as he was willing to go, we should have sufficient provisions left to enable us to hold out for some months longer: even if we had to wait so long as the usual rainy season in this part of the country, which is about January and February, we should still have several months' provisions to start again with. In all these considerations Mr. Carmichael fully agreed, and it was decided that I should inform Alec of our resolution so soon as we returned to the camp. After the usual nearly three hours' work to water our horses, we turned our backs for the last time upon Glen Thirsty, where we had so often returned with exhausted and choking horses.

I must admit that I was getting anxious about Robinson and the state of things at the camp. In going through Worrill's Pass, we noticed that scarcely a tree had escaped from being struck by the lightning; branches and boughs lay scattered about, and several pines from the summits of the ridges had been blasted from their eminence. I was not very much surprised, for I expected to be lightning-struck as I scarcely ever saw such lightning before.

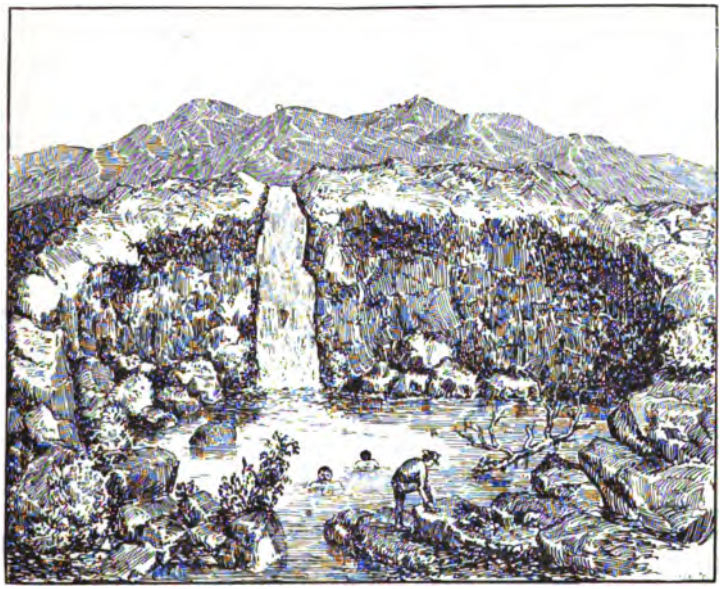
We got back to Robinson and the camp at 5 P.M. My old horse that carried the pack had gone quite lame, and this caused us to travel very slowly. Robinson was alive and quite well, and the little dog was overjoyed to greet us. Robinson reported that natives had been frequently in the neighbourhood, and had lit fires close to the camp, but would not show themselves. Marzetti's mare had foaled, the progeny being a daughter; the horse that was staked was worse, and I found my old horse had also ran a mulga stake into his coronet. I probed the wounds of both, but could not get any wood out. Carmichael and I both thought we would like a day's rest; and if I did not do much work, at least I thought a good deal.

The lame horses are worse: the poisonous mulga must be in the wounds, but I can't get it out. What a pleasure it is, not only to have plenty of water to drink, but actually to have sufficient for a bath! I told Robinson of my views regarding him, but said he must yet remain until some eastern waters could be found. On the 30th October, Mr. Carmichael and I, with three fresh horses, started again. In my travels southerly I had noticed a conspicuous range of some elevation quite distinct from the ridges at which our camp was fixed, and lying nearly east, where an almost overhanging crag formed its north-western face. This range I now decided to visit. To get out of the ridges in which our creek exists, we had to follow the trend of a valley formed by what are sometimes called reap-hook hills; these ran about east-south-east. In a few miles we crossed an insignificant little creek with a few gum-trees; it had a small pool of water

in its bed: the valley was well grassed and open, and the triodia was also absent. A small pass ushered us into a new valley, in which were several peculiar conical hills. Passing over a saddle-like pass, between two of them, we came to a flat, open valley running all the way to the foot of the new range, with a creek channel between. The range appeared very red and rocky, being composed of enormous masses of red sandstone; the upper portion of it was bare, with the exception of a few cypress pines, moored in the rifled rock, and, I supposé, proof to the tempest's shock. A fine-looking creek, lined with gum-trees, issued from a gorge. We followed up the channel, and Mr. Carmichael found a fine little sheet of water in a stony hole, about 400 yards long and forty yards wide. This had about four feet of water in it; the grass was green, and all round the foot of the range the country was open, beautifully grassed, green, and delightful to look at. Having found so eligible a spot, we encamped: how different from our former line of march! We strolled up through the rocky gorge, and found several rock reservoirs with plenty of water; some palm-like Zamias were seen along the rocks. Down the channel, about south-west, the creek passed through a kind of low gorge about three miles away. Smoke was seen there, and no doubt it was an encampment of the natives. Since the heavy though dry thunderstorm at Glen Thirsty, the temperature has been much cooler. I called this King's Creek. Another on the western flat beyond joins it. I called the north-west point of this range Carmichael's Crag. The range trended a little south of east, and we decided to follow along its southern face, which

was open, grassy, and beautifully green; it was by far the most agreeable and pleasant country we had met.

At about five miles we crossed another creek coming immediately out of the range, where it issued from under a high and precipitous wall of rock, underneath which was a splendid deep and pellucid basin of the purest water, which came rushing into and out



PENNY'S CREEK.

of it through fissures in the mountain: it then formed a small swamp thickly set with reeds, which covered an area of several acres, having plenty of water among them. I called this Penny's Creek. Half a mile beyond it was a similar one and reed bed, but no such splendid rock reservoir. Farther along the range other channels issued too, with fine rock water-holes. At eighteen miles we reached a much

larger one than we had yet seen: I hoped this might reach the Finke. We followed it into the range, where it came down through a glen: here we found three fine rock-holes with good supplies of water in them. The glen and rock is all red sandstone: the place reminded me somewhat of Captain Sturt's Depot Glen in the Grey ranges of his Central Australian Expedition, only the rock formation is different, though a cliff overhangs both places, and there are other points of resemblance. I named this Stokes's Creek.

We rested here an hour and had a swim in one of the rocky basins. How different to regions westward, where we could not get enough water to drink, let alone to swim in! The water ran down through the glen as far as the rock-holes, where it sank into the ground. Thermometer 102° to-day. We continued along the range, having a fine stretch of open grassy country to travel upon, and in five miles reached another creek, whose reed beds and water filled the whole glen. This I named Bagot's Creek. For some miles no other creek issued, till, approaching the eastern end of the range, we had a piece of broken stony ground and some mulga for a few miles, when we came to a sudden fall into a lower valley, which was again open, grassy, and green. We could then see that the range ended, but sent out one more creek, which meandered down the valley towards some other hills beyond; this valley was of a clayey soil, and the creek had some clay holes with water in them. Following it three miles farther, we found that it emptied itself into a much larger stony mountain stream; I named this Trickett's Creek, after a friend of Mr. Carmichael's. The

range which had thrown out so many creeks, and contained so much water, and which is over forty miles in length, I named George Gill's Range, after my brother-in-law. The country round its foot is by far the best I have seen in this region ; and could it be transported to any civilised land, its springs, glens, gorges, ferns, Zamias, and flowers, would charm the eyes and hearts of toil-worn men who are condemned to live and die in crowded towns.

The new creek now just discovered had a large stony water-hole immediately above and below the junction of Trickett's Creek, and as we approached the lower one, I noticed several native wurleys just deserted; their owners having seen us while we only thought of them, had fled at our approach, and left all their valuables behind. These consisted of clubs, spears, shields, drinking vessels, yam sticks, with other and all the usual appliances of well-furnished aboriginal gentlemen's establishments. Three young native dog-puppies came out, however, to welcome us, but when we dismounted and they smelt us, not being used to such refined odours as our garments probably exhaled, they fled howling. The natives had left some food cooking, and when I cooeyed they answered, but would not come near. This creek was of some size; it seemed to pass through a valley in a new range further eastwards. It came from the north-west, apparently draining the northern side of Gill's Range. I called it Petermann's Creek. We were now sixty-five miles from our depot, and had been most successful in our efforts to find a route to allow of the departure of Robinson, as it appeared that this creek would surely reach the Finke, though we afterwards found

it did not. I intended upon returning here to endeavour to discover a line of country round the south-eastern extremity of Lake Amadeus, so as to reach Mount Olga at last. We now turned our horses' heads again for our home camp, and continued travelling until we reached Stokes's Creek, where we encamped after a good long day's march.

This morning, as we were approaching Penny's Creek, we saw two natives looking most intently at our outgoing horse tracks, along which they were slowly walking, with their backs towards us. They neither saw nor heard us until we were close upon their heels. Each carried two enormously long spears, two-thirds mulga wood and one-third reed at the throwing end, of course having the instrument with which they project these spears, called by some tribes of natives only, but indiscriminately all over the country by whites, a wommerah. It is in the form of a flat ellipse, elongated to a sort of tail at the holding end, and short-pointed at the projecting end; a kangaroo's claw or wild dog's tooth is firmly fixed by gum and gut-strings. The projectile force of this implement is enormous, and these spears can be thrown with the greatest precision for more than a hundred yards. They also had narrow shields, three to four feet long, to protect themselves from hostile spears, with a handle cut out in the centre. These two natives had their hair tied up in a kind of chignon at the back of the head, the hair being dragged back off the forehead from infancy. This mode gave them a wild though somewhat effeminate appearance; others, again, wear their hair in long thick curls reach-

ing down the shoulders, beautifully elaborated with iguanas' or emus' fat and red ochre. This applies only to the men; the women's hair is worn either cut with flints or bitten off short. So soon as the two natives heard, and then looking round saw us, they scampered off like emus, running along as close to the ground as it is possible for any two-legged creature to do. One was quite a young fellow, the other full grown. They ran up the side of the hills, and kept travelling along parallel to us; but though we stopped and called, and signalled with boughs, they would not come close, and the oftener I tried to come near them on foot, the faster they ran. They continued alongside us until King's Creek was reached, where we rested the horses for an hour. We soon became aware that a number of natives were in our vicinity, our original two yelling and shouting to inform the others of our advent, and presently we saw a whole nation of them coming from the glen or gorge to the south-west, where I had noticed camp-fires on my first arrival here. The new people were also shouting and yelling in the most furious and demoniacal manner; and our former two, as though deputed by the others, now approached us much nearer than before, and came within twenty yards of us, but holding their spears fixed in their wommerahs, in such a position that they could use them instantly if they desired. The slightest incident might have induced them to spear us, but we appeared to be at our ease, and endeavoured to parley with them. The men were not handsome or fat, but were very well made, and, as is the case with most of the natives of these parts, were rather tall, viz. five feet eight

and nine inches. When they had come close enough, the elder began to harangue us, and evidently desired us to know that we were trespassers, and were to be off forthwith, as he waved us away in the direction we had come from. The whole host then took up the signal, howled, yelled, and waved their hands and weapons at us. Fortunately, however, they did not actually attack us; we were not very well prepared for attack, as we had only a revolver each, our guns and rifles being left with Robinson. As our horses were frightened and would not feed, we hurried our departure, when we were saluted with rounds of cheers and blessings, i.e. yells and curses in their charming dialect, until we were fairly out of sight and hearing. On reaching the camp, Alec reported that no natives had been seen during our absence. On inspecting the two lame horses, it appeared they were worse than ever.

We had a very sudden dry thunderstorm, which cooled the air. Next day I sent Alec and Carmichael over to the first little five-mile creek eastwards with the two lame horses, so that we can pick them up en route to-morrow. They reported that the horses could scarcely travel at all; I thought if I could get them to Penny's Creek I would leave them there. This little depot camp was at length broken up, after it had existed here from 15th October to 5th November. I never expected, after being nearly three months out, that I should be pushing to the eastwards, when every hope and wish I had was to go in exactly the opposite direction, and I could only console myself with the thought that I was going to the east to get to the west at last. I

have great hopes that if I can once set my foot upon Mount Olga, my route to the west may be unimpeded. I had not seen all the horses together for some time, and when they were mustered this morning, I found they had all greatly improved in condition, and almost the fattest among them was the little mare that had foaled at Mount Udor. Marzetti's mare looked very well also.

It was past midday when we turned our backs upon Tempe's Vale. At the five-mile creek we got the two lame horses, and reached King's Creek somewhat late in the afternoon. As we neared it, we saw several natives' smokes, and immediately the whole region seemed alive with aborigines, men, women, and children running down from the highest points of the mountain to join the tribe below, where they all congregated. The yelling, howling, shrieking, and gesticulating they kept up was, to say the least, annoying. When we began to unpack the horses, they crowded closer round us, carrying their knotted sticks, long spears, and other fighting implements. I did not notice any boomerangs among them, and I did not request them to send for any. They were growing very troublesome, and evidently meant mischief. I rode towards a mob of them and cracked my whip, which had no effect in dispersing them. They made a sudden pause, and then gave a sudden shout or howl. It seemed as if they knew, or had heard something, of white men's ways, for when I unstrapped my rifle, and holding it up, warning them away, to my great astonishment they departed; they probably wanted to find out if we possessed such things, and I trust they were satis-

fied, for they gave us up apparently as a bad lot.

It appeared the exertion of travelling had improved the go of the lame horses, so I took them along with the others in the morning; I did not like the idea of leaving them anywhere on this range, as the natives would certainly spear, and probably eat them. We got them along to Stokes's Creek, and encamped at the swimming rock-hole.

After our frugal supper a circumstance occurred which completely put an end to my expedition. Mr. Carmichael informed me that he had made up his mind not to continue in the field any longer, for as Alec Robinson was going away, he should do so too. Of course I could not control him; he was a volunteer, and had contributed towards the expenses of the expedition. We had never fallen out, and I thought he was as ardent in the cause of exploration as I was, so that when he informed me of his resolve it came upon me as a complete surprise. My arguments were all in vain; in vain I showed how, with the stock of provisions we had, we might keep the field for months. I even offered to retreat to the Finke, so that we should not have such arduous work for want of water, but it was all useless.

It was with distress that I lay down on my blankets that night, after what he had said. I scarcely knew what to do. I had yet a lot of horses heavily loaded with provisions; but to take them out into a waterless, desert country by myself, was impossible. We only went a short distance—to Bagot's Creek, where I renewed my arguments. Mr. Carmichael's reply was, that he had made up

his mind and nothing should alter it; the consequence was that with one companion I had, so to speak, discharged, and another who discharged himself, any further exploration was out of the question. I had no other object now in view but to hasten my return to civilisation, in hopes of reorganising my expedition. We were now in full retreat for the telegraph line; but as I still traversed a region previously unexplored, I may as well continue my narrative to the close. Marzetti's foal couldn't travel, and had to be killed at Baget's Creek.

On Friday, the 8th November, the party, now silent, still moved under my directions. We travelled over the same ground that Mr. Carmichael and I had formerly done, until we reached the Petermann in the Levi Range. The natives and their pups had departed. The hills approached this creek so close as to form a valley; there were several water-holes in the creek; we followed its course as far as the valley existed. When the country opened, the creek spread out, and the water ceased to appear in its bed. We kept moving all day; towards evening I saw some gum-trees under some hills two or three miles southwards, and as some smoke appeared above the hills, I knew that natives must have been there lately, and that water might be got there. Accordingly, leaving Carmichael and Robinson to go on with the horses, I rode over, and found there was the channel of a small creek, which narrowed into a kind of glen the farther I penetrated. The grass was burning on all the hillsides, and as I went still farther up, I could hear the voices of the natives, and I felt pretty sure of finding water. I was, however, slightly anxious

as to what reception I should get. I soon saw a single native leisurely walking along in front of me with a guana in his hand, taking it home for supper. He carried several spears, a wommerah, and a shield, and had long curled locks hanging down his shoulders. My horse's nose nearly touched his back before he was aware of my presence, when, looking behind him, he gave a sudden start, held up his two hands, dropped his guana and his spears, uttered a tremendous yell as a warning to his tribe, and bounded up the rocks in front of us like a wallaby. I then passed under a eucalyptus-tree, in whose foliage two ancient warriors had hastily secreted themselves. I stopped a second and looked up at them, they also looked at me; they presented a most ludicrous appearance. A little farther on there were several rows of wurleys, and I could perceive the men urging the women and children away, as they doubtless supposed many more white men were in company with me, never supposing I could possibly be alone. While the women and children were departing up the rocks, the men snatched up spears and other weapons, and followed the women slowly towards the rocks. The glen had here narrowed to a gorge, the rocks on either side being not more than eighty to a hundred feet high. It is no exaggeration to say that the summits of the rocks on either side of the glen were lined with natives; they could almost touch me with their spears. I did not feel quite at home in this charming retreat, although I was the cynosure of a myriad eyes. The natives stood upon the edge of the rocks like statues, some pointing their spears menacingly towards me, and I certainly

expected that some dozens would be thrown at me. Both parties seemed paralysed by the appearance of the other. I scarcely knew what to do; I knew if I turned to retreat that every spear would be launched at me. I was, metaphorically, transfixed to the spot. I thought the only thing to do was to brave the situation out, as

> "Cowards, 'tis said, in certain situations
> Derive a sort of courage from despair;
> And then perform, from downright desperation,
> Much bolder deeds than many a braver man would dare."

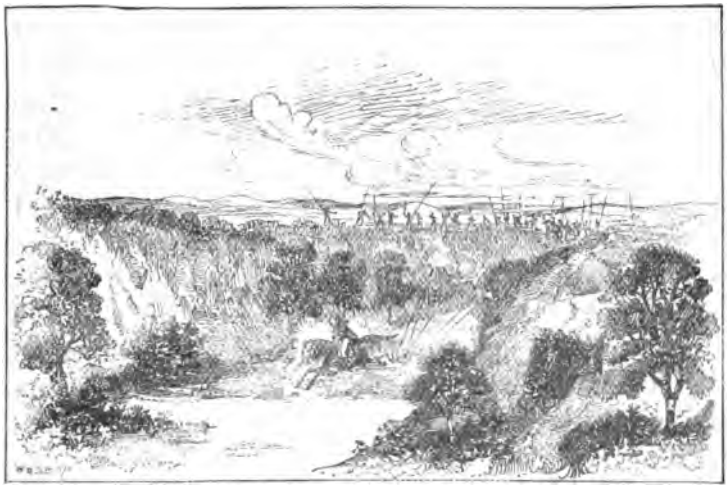
I was choking with thirst, though in vain I looked for a sheet of water; but seeing where they had dug out some sand, I advanced to one or two wells in which I could see water, but without a shovel only a native could get any out of such a funnel-shaped hole. In sheer desperation I dismounted and picked up a small wooden utensil from one of the wurleys, thinking if I could only get a drink I should summon up pluck for the last desperate plunge. I could only manage to get up a few mouthfuls of dirty water, and my horse was trying to get in on top of me. So far as I could see, there were only two or three of these places where all those natives got water. I remounted my horse, one of the best and fastest I have. He knew exactly what I wanted because he wished it also, and that was to be gone. I mounted slowly with my face to the enemy, but the instant I was on he sprang round and was away with a bound that almost left me behind; then such demoniacal yells greeted my ears as I had never heard before and do not wish to hear again; the echoes of the voices of these now indignant and infuriated creatures rever-

berating through the defiles of the hills, and the uncouth sounds of the voices themselves smote so discordantly on my own and my horse's ears that we went out of that glen faster, oh! ever so much faster, than we went in. I heard a horrid sound of spears, sticks, and other weapons, striking violently upon the ground behind me, but I did not stop to pick up any of them, or even to look round to see what caused it. Upon rejoining my companions, as we

ESCAPE GLEN.—THE ADVANCE.

now seldom spoke to one another, I merely told them I had seen water and natives, but that it was hardly worth while to go back to the place, but that they could go if they liked. Robinson asked me why I had ridden my horse West Australian—shortened to W. A., but usually called Guts, from his persistent attention to his "inwards"—so hard when there seemed no likelihoods of our getting any water for the night? I said, "Ride him back

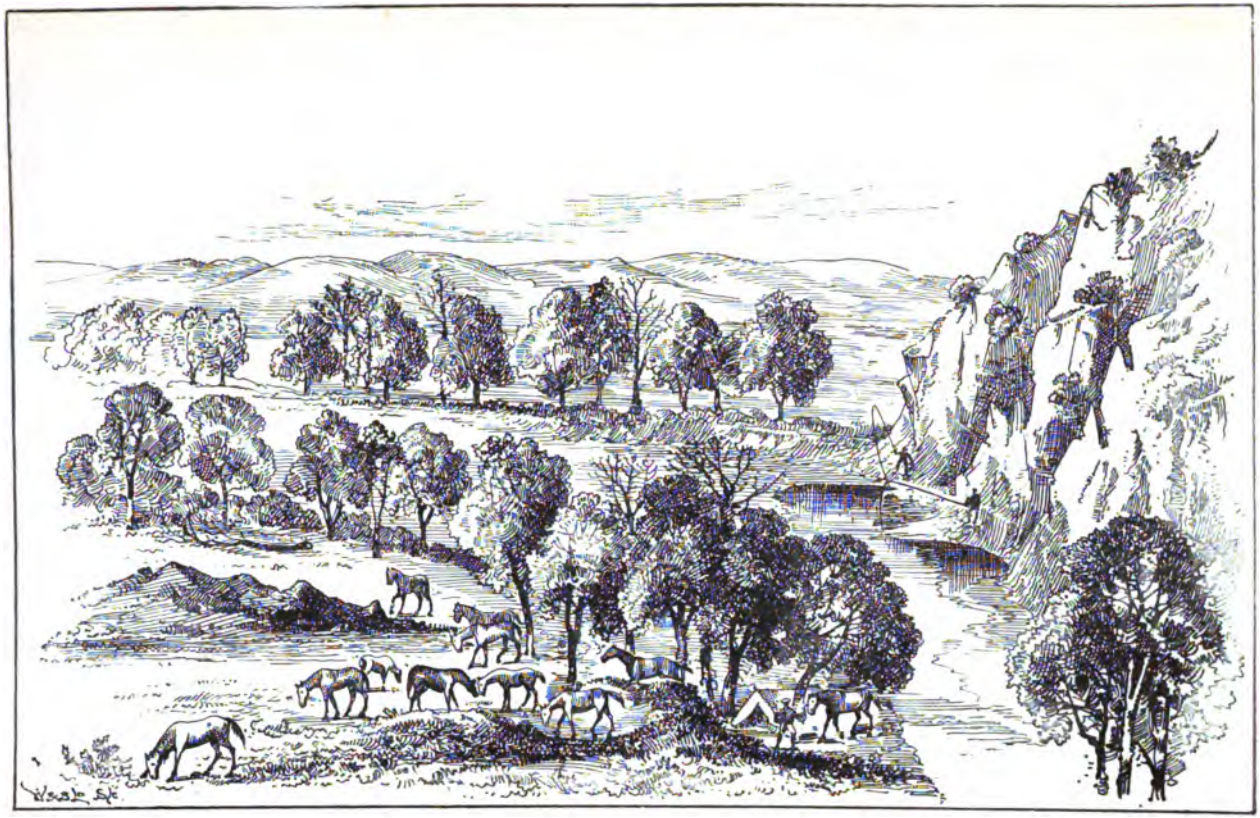
and see." I called this place Escape Glen. In two or three miles after I overtook them, the Petermann became exhausted on the plains. We pushed on nearly east, as now we must strike the Finke in forty-five to fifty miles; but we had to camp that night without water. The lame horses went better the farther they were driven. I hoped to travel the lameness out of them, as instances of that kind have occurred with me more than once. We were away



ESCAPE GLEN.—THE RETREAT.

from our dry camp early, and had scarcely proceeded two miles when we struck the bank of a broad sandy-bedded creek, which was almost as broad as the Finke itself: just where we struck it was on top of a red bank twenty or thirty feet high. The horses naturally looking down into the bed below, one steady old file of a horse, that carried my boxes with the instruments, papers, quicksilver, &c., went too close, the bank crumbled under him, and

down he fell, raising a cloud of red dust. I rode up immediately, expecting to see a fine smash, but no, there he was, walking along on the sandy bed below, as comfortable as he had been on top, not a strap strained or a box shifted in the least. The bed here was dry. Robinson rode on ahead and shortly found two fine large ponds under a hill which ended abruptly over them. On our side a few low ridges ran to meet it, thus forming a kind of pass. Here we outspanned; it was a splendid place. Carmichael and Robinson caught a great quantity of fish with hook and line. I called these Middleton's Pass and Fish Ponds. The country all round was open, grassy, and fit for stock. The next day we got plenty more fish; they were a species of perch, the largest one caught weighed, I dare say, three pounds; they had a great resemblance to Murray cod, which is a species of perch. I saw from the hill overhanging the water that the creek trended south-east. Going in that direction we did not, however, meet it; so turning more easterly, we sighted some pointed hills, and found the creek went between them, forming another pass, where there was another water-hole under the rocks. This, no doubt, had been of large dimensions, but was now gradually getting filled with sand; there was, however, a considerable quantity of water, and it was literally alive with fish, insomuch that the water had a disagreeable and fishy taste. Great numbers of the dead fish were floating upon the water. Here we met a considerable number of natives, and although the women would not come close, several of the men did, and made themselves useful by holding some of the horses' bridles and



MIDDLETON'S PASS AND FISH PONDS.

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getting firewood. Most of them had names given them by their godfathers at their baptism, that is to say, either by the officers or men of the Overland Telegraph Construction parties. This was my thirty-second camp; I called it Rogers's Pass; twenty-two miles was our day's stage. From here two conspicuous semi-conical hills, or as I should say, truncated cones, of almost identical appearance, caught my attention; they bore nearly south 60° east.

Bidding adieu to our sable friends, who had had breakfast with us and again made themselves useful, we started for the twins. To the south of them was a range of some length; of this the twins formed a part. I called it Seymour's Range, and a conic hill at its western end Mount Ormerod. We passed the twins in eleven miles, and found some water in the creek near a peculiar red sandstone hill, Mount Quin; the general course of the creek was south 70° east. Seymour's Range, together with Mounts Quin and Ormerod, had a series of watermarks in horizontal lines along their face, similar to Johnston's Range, seen when first starting, the two ranges lying east and west of one another; the latter-named range we were again rapidly approaching. Not far from Mount Quin I found some clay water-holes in a lateral channel. The creek now ran nearly east, and having taken my latitude this morning by Aldeberan, I was sure of what I anticipated, namely, that I was running down the creek I had called No. 2. It was one that joined the Finke at my outgoing No. 2 camp. We found a water-hole to-day, fenced in by the natives. There was a low range to the south-west,

and a tent-shaped hill more easterly. We rested the horses at the fenced-in water-hole. I walked to the top of the tent hill, and saw the creek went through another pass to the north-east. In the afternoon I rode over to this pass and found some ponds of water on this side of it. A bullock whose tracks I had seen further up the creek had got bogged here. We next travelled through the pass, which I called Briscoe's Pass, the creek now turning up nearly north-east; in six miles further it ran

JUNCTION OF THE PALMER AND THE FINKE.

under a hill, which I well remembered in going out; at thirteen miles from the camp it ended in the broader bosom of the Finke, where there was a fine water-hole at the junction, in the bed of the smaller creek, which was called the Palmer. The Finke now appeared very different to when we passed up. It then had a stream of water running along its channel, but was now almost dry, except that water appeared at intervals upon the surface of the white and sandy bed, which, however, was generally

either salty or bitter; others, again, were drinkable enough. Upon reaching the river we camped.

My expedition was over. I had failed certainly in my object, which was to penetrate to the sources of the Murchison River, but not through any fault of mine, as I think any impartial reader will admit. Our outgoing tracks were very indistinct, but yet recognisable; we camped again at No. 1. Our next line was nearly east, along the course of the Finke, passing a few miles south of Chambers's Pillar. I had left it but twelve weeks and four days; during that interval I had traversed and laid down over a thousand miles of previously totally unknown country. Had I been fortunate enough to have fallen upon a good or even a fair line of country, the distance I actually travelled would have taken me across the continent.

I may here make a few remarks upon the Finke. It is usually called a river, although its water does not always show upon the surface. Overlanders, i.e. parties travelling up or down the road along the South Australian Trans-Continental Telegraph line, where the water does show on the surface, call them springs. The water is always running underneath the sand, but in certain places it becomes impregnated with mineral and salty formations, which gives the water a disagreeable taste. This peculiar drain no doubt rises in the western portions of the McDonnell Range, not far from where I traced it to, and runs for over 500 miles straight in a general south-westerly direction, finally entering the northern end of Lake Eyre. It drains an enormous area of Central South Australia, and on the parallels of 24°, 25°, 26° of south latitude, no other stream

exists between it and the Murchison or the Asburton, a distance in either case of nearly 1,100 miles, and thus it will be seen it is the only Central Australian river.

On the 21st of November we reached the telegraph line at the junction of the Finke and the Hugh. The weather during this month, and almost to its close, was much cooler than the preceding one. The horses were divided between us—Robinson getting six, Carmichael four, and I five. Carmichael and Robinson went down the country, in company, in advance of me, as fast as they could. I travelled more slowly by myself. One night, when near what is called the Horse-shoe bend of the Finke, I had turned out my horses, and as it seemed inclined to rain, was erecting a small tent, and on looking round for the tomahawk to drive a stake into the ground, was surprised to notice a very handsome little black boy, about nine or ten years old, quite close to me. I patted him on the head, whereupon he smiled very sweetly, and began to talk most fluently in his own language. I found he interspersed his remarks frequently with the words Larapinta, white fellow, and yarraman (horses). He told me two white men, Carmichael and Robinson, and ten horses, had gone down, and that white fellows, with horses and camel drays (Gosse's expedition), had just gone up the line. While we were talking, two smaller boys came up and were patted, and patted me in return.

The water on the surface here was bitter, and I had not been able to find any good, but these little imps of iniquity took my tin billy, scratched a hole in the sand, and immediately procured delicious water; so I got them to help to water the horses.

I asked the elder boy, whom I christened Tommy, if he would come along with me and the yarramans; of these they seemed very fond, as they began kissing while helping to water them. Tommy then found a word or two of English, and said, "You master?" The natives always like to know who they are dealing with, whether a person is a master or a servant. I replied, "Yes, mine master." He then said, "Mine (him) ridem yarraman." "Oh, yes." "Which one?" "That one," said I, pointing to old Cocky, and said, "That's Cocky." Then the boy went up to the horse, and said, "Cocky, you ridem me?" Turning to me, he said, "All right, master, you and me Burr-r-r-r-r." I was very well pleased to think I should get such a nice little fellow so easily. It was now near evening, and knowing that these youngsters couldn't possibly be very far from their fathers or mothers, I asked, "Where black fellow?" Tommy said, quite nonchalantly, "Black fellow come up!" and presently I heard voices, and saw a whole host of men, women, and children. Then these three boys set up a long squeaky harangue to the others, and three or four men and five or six boys came running up to me. One was a middle-aged, good-looking man; with him were two boys, and Tommy gave me to understand that these were his father and brothers. The father drew Tommy towards him, and ranged his three boys in a row, and when I looked at them, it was impossible to doubt their relationship—they were all three so wonderfully alike. Dozens more men, boys, and women came round—some of the girls being exceedingly pretty. To feed so large a host, would have required all my

horses as well as my stock of rations, so I singled out Tommy, his two brothers, and the other original little two, at the same time, giving Tommy's father about half a damper I had already cooked, and told him that Tommy was my boy. He shook his head slowly, and would not accept the damper, walking somewhat sorrowfully away. However, I sent it to him by Tommy, and told him to tell his father he was going with me and the horses. The damper was taken that time. It did not rain, and the five youngsters all slept near me, while the tribe encamped a hundred yards away. I was not quite sure whether to expect an attack from such a number of natives. I did not feel quite at ease; though these were, so to say, civilised people, they were known to be great thieves; and I never went out of sight of my belongings, as in many cases the more civilised they are, the more villainous they may be. In the morning Tommy's father seemed to have thought better of my proposal, thinking probably it was a good thing for one of his boys to have a white master. I may say nearly all the civilised youngsters, and a good many old ones too, like to get work, regular rations, and tobacco, from the cattle or telegraph stations, which of course do employ a good many. When one of these is tired of his work, he has to bring up a substitute and inform his employer, and thus a continual change goes on. The boys brought up the horses, and breakfast being eaten, the father led Tommy up to me and put his little hand in mine; at the same time giving me a small piece of stick, and pretending to thrash him; represented to me that, if he didn't behave himself, I was to thrash him. I

gave the old fellow some old clothes (Tommy I had already dressed up), also some flour, tea, and sugar, and lifted the child on to old Cocky's saddle, which had a valise in front, with two straps for the monkey to cling on by. A dozen or two youngsters now also wanted to come on foot. I pretended to be very angry, and Tommy must have said something that induced them to remain. I led the horse the boy was riding, and had to drive the other three in front of me. When we departed, the natives gave us some howls or cheers, and finally we got out of their reach. The boy seemed quite delighted with his new situation, and talked away at a great rate. As soon as we reached the road, by some extraordinary chance, all my stock of wax matches, carried by Badger, caught alight; a perfect volcano ensued, and the novel sight of a pack-horse on fire occurred. This sent him mad, and away he and the two other pack-horses flew down the road, over the sandhills, and were out of sight in no time. I told the boy to cling on as I started to gallop after them. He did so for a bit, but slipping on one side, Cocky gave a buck, and sent Tommy flying into some stumps of timber cut down for the passage of the telegraph line, and the boy fell on a stump and broke his arm near the shoulder. I tied my horse up and went to help the child, who screamed and bit at me, and said something about his people killing me. Every time I tried to touch or pacify him it was the same. I did not know what to do, the horses were miles away. I decided to leave the boy where he was, go after the horses, and then return with them to my last night's camp, and give the boy back to his father. When he saw

me mount, he howled and yelled, but I gave him to understand what I was going to do, and he lay down and cried. I was full of pity for the poor little creature, and I only left him to return. I started away, and not until I had been at full gallop for an hour did I sight the runaway horses. Cocky got away when the accident occurred, and galloped after and found the others, and his advent evidently set them off a second time. Returning to the boy, I saw some smoke, and on approaching close, found a young black fellow also there. He had bound up the child's arm with leaves, and wrapped it up with bits of bark; and when I came he damped it with water from my bag. I then suggested to these two to return; but oh no, the new chap was evidently bound to seek his fortune in London—that is to say, at the Charlotte Waters Station—and he merely remarked, "You, mine, boy, Burr-r-r-r-r, white fellow wurley;" he also said, "Mine, boy, walk, you, yarraman—mine, boy, sleep you wurley, you Burr-r-r-r-r yarraman." All this meant that they would walk and I might ride, and that they would camp with me at night. Off I went and left them, as I had a good way to go. I rode and they walked to the Charlotte. I got the little boy regular meals at the station; but his arm was still bad, and I don't know if it ever got right. I never saw him again.

At the Charlotte Waters I met Colonel Warburton and his son; they were going into the regions I had just returned from. I gave them all the information they asked, and showed them my map; but they and Gosse's expedition went further up the line to the Alice springs, in the McDonnell Ranges, for a starting-point. I was very kindly received here

again, and remained a few days. My old horse Cocky had got bad again, in consequence of his galloping with the pack-horses, and I left him behind me at the Charlotte, in charge of Mr. Johnston. On arrival at the Peake, I found that Mr. Bagot had broken his collar-bone by a fall from a horse. I drove him to the Blinman Mine, where we took the coach for Adelaide. At Beltana, before we reached the Blinman Mine, I heard that my former black boy Dick was in that neighbourhood, and Mr. Chandler, whom I had met at the Charlotte Waters, and who was now stationed here, promised to get and keep him for me until I either came or sent for him: this he did. And thus ends the first book of my explorations.

BOOK II.

NOTE TO THE SECOND EXPEDITION.

In a former part of my narrative I mentioned, that so soon as I had informed my kind friend Baron von Mueller by wire from the Charlotte Waters Telegraph Station, of the failure and break up of my expedition, he set to work and obtained a new fund for me to continue my labours. Although the greatest despatch was used, and the money quickly obtained, yet it required some months before I could again depart. I reached Adelaide late in January, 1873, and as soon as funds were available I set to work at the organisation of a new expedition. I obtained the services of a young friend named William Henry Tietkins —who came over from Melbourne to join me—and we got a young fellow named James Andrews, or Jimmy as we always called him. I bought a light four-wheeled trap and several horses, and we left Adelaide early in March, 1873. We drove up the country by way of the Burra mines to Port Augusta at the head of Spencer's Gulf, buying horses as we went; and having some pack saddles on the wagon, these we put on our new purchases as we got them.

Before I left Adelaide I had instructed Messrs.

Tassie & Co., of Port Augusta, to forward certain stores required for our journey, which loading had already been despatched by teams to the Peake. We made a leisurely journey up the country, as it was of no use to overtake our stores. At Beltana Mr. Chandler had got and kept my black boy Dick, who pretended to be overjoyed to see me, and perhaps he really was; but he was extra effusive in his affection, and now declared he had been a silly young fool, that he didn't care for wild blacks now a bit, and would go with me anywhere. When Mr. Chandler got him he was half starved, living in a blacks' camp, and had scarcely any clothes. Leaving Beltana, in a few days we passed the Finniss Springs Station, and one of the people there made all sorts of overtures to Dick, who was now dressed in good clothes, and having had some good living lately, had got into pretty good condition; some promises must have been made him, as when we reached the Gregory, he bolted away, and I never saw him afterwards.

The Gregory was now running, and by simply dipping out a bucketful of water, several dozens of minnows could be caught. In this way we got plenty of them, and frying them in butter, just as they were, they proved the most delicious food it was possible to eat, equal, if not superior, to white-bait. Nothing of a very interesting nature occurred during our journey up to the Peake, where we were welcomed by the Messrs. Bagot at the Cattle Station, and Mr. Blood of the Telegraph Department. Here we fixed up all our packs, sold Mr. Bagot the wagon, and bought horses and other things; we had now twenty pack-horses and four riding ditto.

Here a short young man accosted me, and asked me if I did not remember him, saying at the same time that he was "Alf." I fancied I knew his face, but thought it was at the Peake that I had seen him, but he said, "Oh no, don't you remember Alf with Bagot's sheep at the north-west bend of the Murray? my name's Alf Gibson, and I want to go out with you." I said, "Well, can you shoe? can you ride? can you starve? can you go without water? and how would you like to be speared by the blacks outside?" He said he could do everything I had mentioned, and he wasn't afraid of the blacks. He was not a man I would have picked out of a mob, but men were scarce, and as he seemed so anxious to come, and as I wanted somebody, I agreed to take him. We got all our horses shod, and two extra sets of shoes fitted for each, marked, and packed away. I had a little black-and-tan terrier dog called Cocky, and Gibson had a little pup of the same breed, which he was so anxious to take that at last I permitted him to do so.

Our horses' loads were very heavy at starting, the greater number of the horses carrying 200 lbs. The animals were not in very good condition; I got the horse I had formerly left here, Badger, the one whose pack had been on fire at the end of my last trip. I had decided to make a start upon this expedition from a place known as Ross's Water-hole in the Alberga Creek, at its junction with the Stevenson, the Alberga being one of the principal tributaries of the Finke. The position of Ross's Water-hole is in latitude 27° 8′ and longitude 135° 45′, it lying 120 to 130 miles in latitude more to the south than the Mount Olga of my first

journey, which was a point I was most desirous to reach. Having tried without success to reach it from the north, I now intended to try from a more southerly line. Ross's Water-hole is called ninety miles from the Peake, and we arrived there without any difficulty. The nights now were exceedingly cold, as it was near the end of July. When we arrived I left the others in camp and rode myself to the Charlotte Waters, expecting to get my old horse Cocky, and load him with 200 lbs. of flour; but when I arrived there, the creek water-hole was dry, and all the horses running loose on the Finke. I got two black boys to go out and try to get the horse, but on foot in the first place they could never have done it, and in the second place, when they returned, they said they could not find him at all. I sent others, but to no purpose, and eventually had to leave the place without getting him, and returned empty-handed to the depot, having had my journey and lost my time for nothing.

There was but poor feed at the water-hole, every teamster and traveller always camping there. Some few natives appeared at the camp, and brought some boys and girls. An old man said he could get me a flour-bag full of salt up the creek, so I despatched him for it; he brought back a little bit of dirty salty gravel in one hand, and expected a lot of flour, tea, sugar, meat, tobacco, and clothes for it; but I considered my future probable requirements, and refrained from too much generosity. A nice little boy called Albert agreed to come with us, but the old man would not allow him—I suppose on account of the poor reward he got for his salt. A young black fellow here said he had found a

white man's musket a long way up the creek, and that he had got it in his wurley, and would give it to me for flour, tea, sugar, tobacco, matches, and clothes. I only promised flour, and away he went to get the weapon. Next day he returned, and before reaching the camp began to yell, "White fellow mukkety, white fellow mukkety." I could see he had no such thing in his hands, but when he arrived he unfolded a piece of dirty old pocket-handkerchief, from which he produced—what? an old discharged copper revolver cartridge. His reward was commensurate with his prize.

The expedition consisted of four members—namely, myself, Mr. William Henry Tietkins, Alfred Gibson, and James Andrews, with twenty-four horses and two little dogs. On Friday, the 1st of August, 1873, we were prepared to start, but rain stopped us; again on Sunday some more fell. We finally left the encampment on the morning of Monday, the 4th.

CHAPTER I.

FROM THE 4TH TO THE 22ND AUGUST, 1873.

Leave for the west—Ascend the Alberga—An old building—Rain, thunder, and lightning—Leave Alberga for the north-west—Drenched in the night—Two lords of the soil—Get their congé—Water-holes—Pretty amphitheatre—Scrubs on either side—Watering the horses—A row of saplings—Spinifex and poplars—Dig a tank—Hot wind—A broken limb — Higher hills — Flat-topped hills — Singular cones — Better country — A horse staked — Bluff-faced hills — The Anthony Range—Cool nights—Tent-shaped hills—Fantastic mounds — Romantic valley — Picturesque scene — A gum creek—Beautiful country—Gusts of fragrance—New and independent hills — Large creek — Native well — Jimmy's report — The Krichauff — Cold nights — Shooting blacks—Labor omnia vincit—Thermometer 28°—Dense scrubs—Small creek—Native pheasant's nest—Beautiful open ground —Charming view—Rocks piled on rocks.

On Monday, the 4th August, 1873, my new expedition, under very favourable circumstances, started from Ross's Water-hole in the Alberga. The country through which the Alberga here runs is mostly open and stony, but good country for stock of all kinds. The road and the telegraph line are here thirteen miles apart. At that distance up the creek, nearly west, we reached it. The frame of an old building was convenient for turning into a house, with a tarpaulin for a roof, as there appeared a like-

lihoods of more rain. Some water was got in a clay-pan in the neighbourhood.

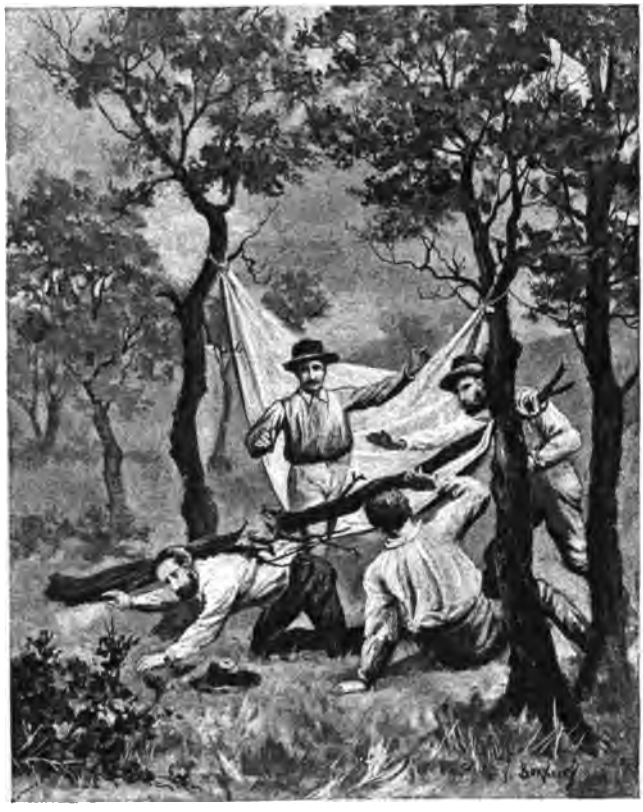
A misty and cloudy morning warned us to keep under canvas: rain fell at intervals during the day, and at sundown heavy thunder and bright lightning came from the north-west, with a closing good smart shower. The next morning was fine and clear, though the night had been extremely cold. The bed of this creek proved broad but ill-defined, and cut up into numerous channels. Farther along the creek a more scrubby region was found; the soil was soft after the rain, but no water was seen lying about. The creek seemed to be getting smaller; I did not like its appearance very much, so struck away north-west. The country now was all thick mulga scrub and grassy sandhills; amongst these we found a clay-pan with some water in it. At night we were still in the scrub, without water, but we were not destined to leave it without any, for at ten o'clock a thunderstorm from the north-west came up, and before we could get half our things under canvas, we were thoroughly drenched. Off our tarpaulins we obtained plenty of water for breakfast; but the ground would not retain any. Sixteen miles farther along we came down out of the sandhills on to a creek where we found water, and camped, but the grass was very poor, dry, and innutritious. More rain threatened, but the night was dry, and the morning clear and beautiful. This creek was the Hamilton. Two of its native lords visited the camp this morning, and did not appear at all inclined to leave it. The creek is here broad and sandy: the timber is small and stunted. Towards evening the two Hamiltonians put on airs of

great impudence, and became very objectionable; two or three times I had to resist their encroachments into the camp, and at last they greatly annoyed me. I couldn't quite make out what they said to one another; but I gathered they expected more of their tribe, and were anxiously looking out for them in all directions. Finally, as our guns wanted discharging and cleaning after the late showers, we fired them off, and so soon as the natives saw us first handle and then discharge them, off they went, and returned to Balclutha no more.

Going farther up the creek, we met some small tributaries with fine little water-holes. Some ridges now approached the creek; from the top of one many sheets of water glittered in stony clay-pans. More westerly the creek ran under a hill. Crossing another tributary where there was plenty of water, we next saw a large clay-hole in the main creek—it was, however, dry. When there was some water in it, the natives had fenced it round to catch any large game that might come to drink; at present they were saved the trouble, for game and water had both alike departed. Mr. Tietkens, my lieutenant and second in command, found a very pretty amphitheatre formed by the hills; we encamped there, at some clay-pans; the grass, however, was very poor; scrubs appeared on the other side of the creek. A junction with another creek occurred near here, beyond which the channel was broad, flat, sandy, and covered indiscriminately with timber; scrubs existed on either bank. We had to cross and recross the bed as the best road. We found a place in it where the natives had dug, and where we got water, but the supply was very unsatis-

factory, an enormous quantity of sand having to be shifted before the most willing horse could get down to it. We succeeded at length with the aid of canvas buckets, and by the time the whole twenty-four were satisfied, we were also. The grass was dry as usual, but the horses ate it, probably because there is no other for them. Our course to-day was 8° south of west. Close to where we encamped were three or four saplings placed in a row in the bed of the creek, and a diminutive tent-frame, as though some one, if not done by native children, had been playing at erecting a miniature telegraph line. I did not like this creek much more than the Alberga, and decided to try the country still farther north-west. This we did, passing through somewhat thick scrubs for eighteen miles, when we came full upon the creek again, and here for the first time since we started we noticed some bunches of spinifex, the Festuca irritans, and some native poplar trees. These have a straight stem, and are in outline somewhat like a pine-tree, but the foliage is of a fainter green, and different-shaped leaf. They are very pretty to the eye, but generally inhabit the very poorest regions; the botanical name of this tree is Codonocarpus cotinifolius. At five miles farther we dug in the bed of the creek, but only our riding-horses could be watered by night. White pipeclay existed on the bed. The weather was oppressive to-day. Here my latitude was 26° 27′, longitude 134°. It took all next day to water the horses. Thermometer 92° in shade, hot wind blowing. The dead limb of a tree, to which we fixed our tarpaulin as an awning for shade, slipped down while we were at dinner; it first fell on the

head of Jimmy Andrews, which broke it in half; it also fell across my back, tearing my waistcoat, shirt, and skin; but as it only fell on Jimmy's head, of course it couldn't hurt him. The country



AN INCIDENT OF TRAVEL.

still scrubby on both sides: we now travelled about north-north-west, and reached a low stony rise in the scrubs, and from it saw the creek stretching away towards some other ridges nearly on the line we were travelling. We skirted the creek, and in

eleven miles we saw other hills of greater elevation than any we had yet seen.

Reaching the first ridge, we got water by digging a few inches into the pipeclay bed of the creek; a more extended view was here obtained, and ranges appeared from west, round by north-west, to north; there were many flat-topped hills and several singular cones, and the country appeared more open. I was much pleased to think I had distanced the scrubs. One cone in the new range bore north 52° west, and for some distance the creek trended that way. On reaching the foot of the new hills, I found the creek had greatly altered its appearance, if indeed it was the same. It is possible the main creek may have turned more to the west, and that this is only a tributary, but as we found some surface water in a clay-hole, we liked it better than having to dig in a larger channel. Here for the first time for many weeks we came upon some green grass, which the horses greedily devoured. The country here is much better and more open. On mustering the horses this morning, one was found to be dead lame, with a mulga stake in his coronet, and as he could not travel we were forced to remain at the camp; at least the camp was not shifted. This horse was called Trew; he was one of the best in the mob, though then I had not found out all his good qualities—he now simply carried a pack. Mr. Tietkens and I mounted our horses and rode farther up the creek. The channel had partly recovered its appearance, and it may be our old one after all. Above the camp its course was nearly north, and a line of low bluff-faced hills formed its eastern bank. The country towards the new ranges

looked open and inviting, and we rode to a prominent cone in it, to the west-north-west. The country was excellent, being open and grassy, and having fine cotton and salt bush flats all over it: there was surface water in clay-pans lying about. I called this the Anthony Range. We returned much pleased with our day's ride.

The nights were now agreeably cool, sometimes very dewy. The lame horse was still very bad, but we lightened his load, and after the first mile he travelled pretty well. We steered for the singular cone in advance. Most of the hills, however, of the Anthony Range were flat-topped, though many tent-shaped ones exist also. I ascended the cone in ten miles, west of north-west from camp. The view displayed hills for miles in all directions, amongst which were many bare rocks of red colour heaped into the most fantastically tossed mounds imaginable, with here and there an odd shrub growing from the interstices of the rocks; some small miniature creeks, with only myal and mulga growing in them, ran through the valleys—all of these had recently been running. We camped a mile or two beyond the cone in an extremely pretty and romantic valley; the grass was green, and Nature appeared in one of her smiling moods, throwing a gleam of sunshine on the minds of the adventurers who had sought her in one of her wilderness recesses. The only miserable creature in our party was the lame horse, but now indeed he had a mate in misfortune, for we found that another horse, Giant Despair, had staked himself during our day's march, though he did not appear lame until we stopped, and his hobbles were about to be put on.

Mr. Tietkens extracted a long mulga stick from his fetlock: neither of the two staked horses ever became sound again, although they worked well enough. In the night, or rather by morning (daylight), the thermometer had fallen to 30°, and though there was a heavy dew there was neither frost nor ice.

We now passed up to the head of the picturesque valley, and from there wound round some of the mounds of bare rocks previously mentioned. They are composed of a kind of a red conglomerate granite. We turned in and out amongst the hills till we arrived at the banks of a small creek lined with eucalyptus or gum-trees, and finding some water we encamped on a piece of beautiful-looking country, splendidly grassed and ornamented with the fantastic mounds, and the creek timber as back and fore grounds for the picture. Small birds twittered on each bough, sang their little songs of love or hate, and gleefully fled or pursued each other from tree to tree. The atmosphere seemed cleared of all grossness or impurities, a few sunlit clouds floated in space, and a perfume from Nature's own laboratory was exhaled from the flowers and vegetation around. It might well be said that here were

> "Gusts of fragrance on the grasses,
> In the skies a softened splendour;
> Through the copse and woodland passes
> Songs of birds in cadence tender."

The country was so agreeable here we had no desire to traverse it at railway speed; it was delightful to loll and lie upon the land, in abandoned languishment beneath the solar ray. Thirty or forty

miles farther away, west-north-westward, other and independent hills or ranges stood, though I was grieved to remark that the intermediate region seemed entirely filled with scrub. How soon the scenery changes! Travelling now for the new hills, we soon entered scrubs, where some plots of the dreaded triodia were avoided. In the scrubs, at ten miles we came upon the banks of a large gum-timbered creek, whose trees were fine and vigorous. In the bed we found a native well, with water at no great depth; the course of this creek where we struck it, was south-south-east, and we travelled along its banks in an opposite, that is to say, north-north-west direction. That line, however, took us immediately into the thick scrubs, so at four miles on this bearing I climbed a tree, and saw that I must turn north to cut it again; this I did, and in three miles we came at right angles upon a creek which I felt sure was not the one we had left, the scrub being so thick one could hardly see a yard ahead. Here I sent Jimmy Andrews up a tree; having been a sailor boy, he is well skilled in that kind of performance, but I am not. I told him to discover the whereabouts of the main creek, and say how far off it appeared. That brilliant genius informed me that it lay across the course we were steering, north, and it was only a mile away; so we went on to it, as we supposed, but having gone more than two miles and not reaching it, I asked Jimmy whether he had not made some mistake. I said, "We have already come two miles, and you said it was scarcely one." He then kindly informed me that I was going all wrong, and ought not to go that way at all; but upon my questioning him as to which way

I should go he replied, "Oh, I don't know *now*." My only plan was to turn east, when we soon struck the creek. Then Jimmy declared if we had *kept north long enough*, we would have come to it *agin*.

Though Jimmy was certainly a bit of a fool, he was not perhaps quite a fool of the greatest size. Little fools and young fools somehow seem to pass muster in this peculiar world, but to be old and a fool is a mistake which is difficult, if not impossible, to remedy. It was too late to go any farther; we couldn't get any water, but we had to camp. I intended to return in the morning to where we first struck this creek, and where we saw water in the native well. I called this the Krichauff. The mercury went down to 28° by daylight the next morning, but neither ice nor frost appeared. This morning Mr. Tietkens, when out after the horses, found a rather deep native well some distance up the creek, and we shifted the camp to it. On the way there I was behind the party, and before I overtook them I heard the report of firearms. On reaching the horses, Jimmy Andrews had his revolver in his hand, Mr. Tietkens and Gibson being away. On inquiring of Jimmy the cause of the reports and the reason of his having his revolver in his hand, he replied that he thought Mr. Tietkens was shooting the blacks, and he had determined to slaughter his share if they attacked him. Mr. Tietkens had fired at some wallabies, which, however, did not appear at dinner. On arrival at the new well, we had a vast amount of work to perform, and only three or four horses got water by night.

I told Mr. Tietkens not to work himself to death, as I would retreat in the morning to where there

was water, but he persisted in working away by himself in the night, and was actually able to water all the horses in the morning. Labor omnia vincit. Last night there was a heavy fall of dew, thermometer 28°, but no frost or ice. I was delighted to turn my back upon this wretched place.

The object of our present line was to reach the new hills seen from the Anthony Range. Three of them appeared higher than, and isolated from, the others. They now bore west of us—at least they should have done so, and I hoped they did, for in such thick scrubs it was quite impossible to see them. No matter for that, we steered west for them and traversed a region of dense scrubs. I was compelled to ride in advance with a bell on my stirrup to enable the others to hear which way to come. In seventeen miles we struck a small gum creek without water, but there was good herbage. In the scrubs to-day we saw a native pheasant's nest, the Leipoa ocellata of Gould, but there were no eggs in it. This bird is known by different names in different parts of Australia. On the eastern half of the continent it is usually called the Lowan, while in Western Australia it is known as the Gnow; both I believe are native names. Another cold night, thermometer 26°, with a slight hoar frost. Moving on still west through scrubs, but not so thick as yesterday, some beautiful and open ground was met till we reached the foot of some low ridges.

From the top of one of these, we had before us a most charming view, red ridges of extraordinary shapes and appearance being tossed up in all directions, with the slopes of the soil, from whence

they seemed to spring, rising gently, and with verdure clad in a garment of grass whose skirts were fringed with flowers to their feet. These slopes were beautifully bedecked with flowers of the most varied hues, throwing a magic charm over the entire scene. Vast bare red

> "Rocks piled on rocks stupendous hurled,
> Like fragments of an earlier world,"

appeared everywhere, but the main tier of ranges for which I had been steering was still several miles farther away to the west. Thinking that water, the scarcest here of Nature's gifts, must surely exist in such a lovely region as this, it was more with the keen and critical eye of the explorer in search of that element, than of the admirer of Nature in her wildest grace, that I surveyed the scene. A small gum creek lay to the south, to which Mr. Tietkens went. I sent Gibson to a spot about two miles off to the west, as straight before us in that direction lay a huge mass of rocks and bare slabs of stone, which might have rock reservoirs amongst them. To the north lay a longer jumble of hills, with overhanging ledges and bare precipices, which I undertook to search, leaving Jimmy to mind the horses until some of us returned. Neither Mr. Tietkens nor Gibson could find any water, and I was returning quite disappointed, after wandering over hills and rocks, through gullies and under ledges, when at length I espied a small and very fertile little glen whose brighter green attracted my notice. Here a small gully came down between two hills, and in the bed of the little channel I saw a patch of blacker

soil, and on reaching it I found a small but deep native well with a little water at the bottom. It was an extraordinary little spot, and being funnel-shaped, I doubted whether any animal but a bird or a black man could get down to it, and I also expected it would prove a hideous bog; but my little friend (W. A.) seemed so determined to test its nature, and though it was nearly four feet to the water, he quietly let his forefeet slip down into it, and though his hindquarters were high and dry above his head he got a good drink, which he told me in his language he was very thankful for. I brought the whole party to the spot, and we had immediately to set to work to enlarge the well. We found the water supply by no means abundant, as, though we all worked hard at it in turns with the shovel, it did not drain in as fast as one horse could drink; but by making a large hole, we expected sufficient would drain in during the night for the remainder of the horses. We did not cease from our work until it was quite dark, when we retired to our encampment, quite sufficiently tired to make us sleep without the aid of any lullaby.

CHAPTER II.

FROM 22ND AUGUST TO 10TH SEPTEMBER, 1873.

A poor water supply—Seeds planted—Beautiful country—Ride westward—A chopped log—Magnetic hill—Singular scenery—Snail-shells—Cheering prospect westward—A new chain of hills—A nearer mountain—Vistas of green—Gibson finds water—Turtle backs—Ornamented Troglodytes' caves—Water and emus—Beef-wood-trees—Grassy lawns—Gum creek—Purple vetch—Cold dewy night—Jumbled turtle backs—Tietkens returns—I proceed—Two-storied native huts—Chinese doctrine—A wonderful mountain—Elegant trees—Extraordinary ridge—A garden—Nature imitates her imitator—Wild and strange view—Pool of water—A lonely camp—Between sleeping and waking—Extract from Byron for breakfast—Return for the party—Emus and water—Arrival of Tietkens—A good camp—Tietkens's birthday creek—Ascend the mountain—No signs of water—Gill's range—Flat-topped hill—The Everard range—High mounts westward—Snail shells—Altitude of the mountain—Pretty scenes—Parrot soup—The sentinel—Thermometer 26°—Frost—Lunar rainbow—A charming spot—A pool of water—Cones of the main range—A new pass—Dreams realised—A long glen—Glen Ferdinand—Mount Ferdinand—The Reid—Large creek—Disturb a native nation—Spears hurled—A regular attack—Repulse and return of the enemy—Their appearance—Encounter Creek—Mount Officer—The Currie—The Levinger—Excellent country—Horse-play——Mount Davenport—Small gap—A fairy space—The Fairies' Glen—Day dreams—Thermometer 24°—Ice—Mount Oberon—Titania's spring—Horses bewitched—Glen Watson—Mount Olga in view—The Musgrave range.

UPON inspection this morning we found but a poor supply of water had drained into our tank in the

night, and that there was by no means sufficient for the remaining horses; these had no water yesterday. We passed the forenoon in still enlarging the tank, and as soon as a bucketful drained in, it was given to one of the horses. We planted the seeds of a lot of vegetables and trees here, such as Tasmanian blue gum, wattle, melons, pumpkins, cucumbers, maize, &c.; and then Mr. Tietkens and I got our horses and rode to the main hills to the west, in hopes of discovering more water. We started late, and it was dark when we reached the range. The country passed over between it and our encampment, was exceedingly beautiful; hills being thrown up in red ridges of bare rock, with the native fig-tree growing among the rocks, festooning them into infinite groups of beauty, while the ground upon which we rode was a perfect carpet of verdure. We were therefore in high anticipation of finding some waters equivalent to the scene; but as night was advancing, our search had to be delayed until the morrow. The dew was falling fast, the night air was cool, and deliciously laden with the scented exhalations from trees and shrubs and flowers. The odour of almonds was intense, reminding me of the perfumes of the wattle blooms of the southern, eastern, and more fertile portions of this continent. So exquisite was the aroma, that I recalled to my mind Gordon's beautiful lines:—

> "In the spring when the wattle gold trembles,
> 'Twixt shadow and shine,
> When each dew-laden air draught resembles;
> A long draught of wine."

So delightful indeed was the evening that it was late when we gave ourselves up to the oblivion of slumber, beneath the cool and starry sky. We made a fire against a log about eighteen inches thick; this was a limb from an adjacent blood-wood or red gum-tree, and this morning we discovered that it had been chopped off its parent stem either with an axe or tomahawk, and carried some forty or fifty yards from where it had originally fallen. This seemed very strange; in the first place for natives, so far out from civilisation as this, to have axes or tomahawks; and in the second place, to chop logs or boughs off a tree was totally against their practice. By sunrise we were upon the summit of the mountain; it consisted of enormous blocks and boulders of red granite, so riven and fissured that no water could possibly lodge upon it for an instant. I found it also to be highly magnetic, there being a great deal of ironstone about the rocks. It turned the compass needle from its true north point to 10° south of west, but the attraction ceased when the compass was removed four feet from contact with the rocks. The view from this mount was of singular and almost awful beauty. The mount, and all the others connected with it, rose simply like islands out of a vast ocean of scrub. The beauty of the locality lay entirely within itself. Innumerable red ridges ornamented with fig-trees, rising out of green and grassy slopes, met the eye everywhere to the east, north, and north-east, and the country between each was just sufficiently timbered to add a charm to the view. But the appearance of water still was wanting; no signs of it, or of any basin or hollow

that could hold it, met the gaze in any direction. This alone was wanting to turn a wilderness into a garden.

There were four large mounts in this chain, higher than any of the rest, including the one I was on. Here we saw a quantity of what I at first thought were white sea-shells, but we found they were the bleached shells of land snails. Far away to the north some ranges appeared above the dense ocean of intervening scrubs. To the south, scrubs reigned supreme; but to the west, the region for which I was bound, the prospect looked far more cheering. The far horizon, there, was bounded by a very long and apparently connected chain of considerable elevation, seventy to eighty miles away. One conspicuous mountain, evidently nearer than the longer chain, bore 15° to the south of west, while an apparent gap or notch in the more distant line bore 23° south of west. The intervening country appeared all flat, and very much more open than in any other direction; I could discern long vistas of green grass, dotted with yellow immortelles, but as the perspective declined, these all became lost in lightly timbered country. These grassy glades were fair to see, reminding one somewhat of Merrie England's glades and Sherwood forests green, where errant knight in olden days rode forth in mailëd sheen; and memory oft, the golden rover, recalls the tales of old romance, how ladie bright unto her lover, some young knight, smitten with her glance, would point out some heroic labour, some unheard-of deed of fame; he must carve out with his sabre, and ennoble thus his name. He, a giant must defeat sure, he must free the land

from tain, he must kill some monstrous creature, or return not till 'twas slain. Then she'd smile on him victorious, call him the bravest in the land, fame and her, to win, how glorious—win and keep her heart and hand!

Although no water was found here, what it pleases me to call my mind was immediately made up. I would return at once to the camp, where water was so scarce, and trust all to the newly discovered chain to the west. Water must surely exist there, we had but to reach it. I named these mounts Ayers Range. Upon returning to our camp, six or seven miles off, I saw that a mere dribble of water remained in the tank. Gibson was away after the horses, and when he brought them, he informed me he had found another place, with some water lying on the rocks, and two native wells close by with water in them, much shallower than our present one, and that they were about three miles away. I rode off with him to inspect his new discovery, and saw there was sufficient surface water for our horses for a day or two.

These rocks are most singular, being mostly huge red, rounded solid blocks of stone, shaped like the backs of enormous turtles. I was much pleased with Gibson's discovery, and we moved the camp down to this spot, which we always after called the Turtle Back. The grass and herbage were excellent, but the horses had not had sufficient water since we arrived here. It is wonderful how in such a rocky region so little water appears to exist. The surface water was rather difficult for the horses to reach, as it lay upon the extreme summit of the rock, the sides of which were very steep and

slippery. There were plenty of small birds; hawks and crows, a species of cockatoo, some pigeons, and eagles soaring high above. More seeds were planted here, the soil being very good. Upon the opposite or eastern side of this rock was a large ledge or cave, under which the Troglodytes of these realms had frequently encamped. It was ornamented with many of their rude representations of creeping things, amongst which the serpent class predominated; there were also other hideous shapes, of things such as can exist only in their imaginations, and they are but the weak endeavours of these benighted beings to give form and semblance to the symbolisms of the dread superstitions, that, haunting the vacant chambers of their darkened minds, pass amongst them in the place of either philosophy or religion.

Next morning, watering all our horses, and having a fine open-air bath on the top of the Turtle Back, Mr. Tietkens and I got three of them and again started for Ayers Range, nearly west. Reaching it, we travelled upon the bearing of the gap which we had seen in the most distant range. The country as we proceeded we found splendidly open, beautifully grassed, and it rose occasionally into some low ridges. At fifteen miles from the Turtle Back we found some clay-pans with water, where we turned out our horses for an hour. A mob of emus came to inspect us, and Mr. Tietkens shot one in a fleshy part of the neck, which rather helped it to run away at full speed instead of detaining, so that we might capture it. Next some parallel ridges lying north and south were crossed, where some beefwood, or Grevillea trees, ornamented the scene, the

country again opening into beautiful grassy lawns. One or two creek channels were crossed, and a larger one farther on, whose timber indeed would scarcely reach our course; as it would not come to us, we went to it. The gum-timber upon it was thick and vigorous—it came from the north-westward. A quantity of the so called tea-tree [Malaleuca] grew here. In two miles up the channel we found where a low ridge crossed and formed a kind of low pass. An old native well existed here, which, upon cleaning out with a quart pot, disclosed the element of our search to our view at a depth of nearly five feet. The natives always make these wells of such an abominable shape, that of a funnel, never thinking how awkward they must be to white men with horses—some people are so unfeeling! It took us a long time to water our three horses. There was a quantity of the little purple vetch here, of which all animals are so fond, and which is so fattening. There was plenty of this herb at the Turtle Back, and wherever it grows it gives the country a lovely carnation tinge; this, blending with the bright green of the grass, and the yellow and other tinted hues of several kinds of flowers, impresses on the whole region the appearance of a garden.

In the morning, in consequence of a cold and dewy night, the horses declined to drink. Regaining our yesterday's course, we continued for ten miles, when we noticed that the nearest mountain seen from Ayers Range was now not more than thirty miles away. It appeared red, bald, and of some altitude; to our left was another mass of jumbled turtle backs, and we turned to search for water

among them. A small gum creek to the south-south-east was first visited and left in disgust, and all the rocks and hills we searched, were equally destitute of water. We wasted the rest of the day in fruitless search; Nature seemed to have made no effort whatever to form any such thing as a rock-hole, and we saw no place where the natives had ever even dug. We had been riding from morning until night, and we had neither found water nor reached the mountain. We returned to our last night's camp, where the sand had all fallen into the well, and we had our last night's performance with the quart pot to do over again.

In the morning I decided to send Mr. Tietkens back to the camp to bring the party here, while I went to the mountain to search for water. We now discovered we had brought but a poor supply of food, and that a hearty supper would demolish the lot, so we had to be sadly economical. When we got our horses the next morning we departed, each on his separate errand—Mr. Tietkens for the camp, I for the mountain. I made a straight course for it, and in three or four miles found the country exceedingly scrubby. At ten miles I came upon a number of native huts, which were of large dimensions and two-storied; by this I mean they had an upper attic, or cupboard recess. When the natives return to these, I suppose they know of some water, or else get it out of the roots of trees. The scrubs became thicker and thicker, and only at intervals could the mountain be seen. At a spot where the natives had burnt the old grass, and where some new rich vegetation grew, I gave my horse the benefit of an hour's rest, for he had come

twenty-two miles. The day was delightful; the thermometer registered only 76° in the shade. I had had a very poor breakfast, and now had an excellent appetite for all the dinner I could command, and I could not help thinking that there is a great deal of sound philosophy in the Chinese doctrine, That the seat of the mind and the intellect is situate in the stomach.

Starting again and gaining a rise in the dense ocean of scrub, I got a sight of the mountain, whose appearance was most wonderful; it seemed so rifted and riven, and had acres of bare red rock without a shrub or tree upon it. I next found myself under the shadow of a huge rock towering above me amidst the scrubs, but too hidden to perceive until I reached it. On ascending it I was much pleased to discover, at a mile and a half off, the gum timber of a creek which meandered through this wilderness. On gaining its banks I was disappointed to find that its channel was very flat and poorly defined, though the timber upon it was splendid. Elegant upright creamy stems supported their umbrageous tops, whose roots must surely extend downwards to a moistened soil. On each bank of the creek was a strip of green and open ground, so richly grassed and so beautifully bedecked with flowers that it seemed like suddenly escaping from purgatory into paradise when emerging from the recesses of the scrubs on to the banks of this beautiful, I wish I might call it, stream.

Opposite to where I struck it stood an extraordinary hill or ridge, consisting of a huge red turtle back having a number of enormous red stones almost egg-shaped, traversing, or rather standing in

a row upon, its whole length like a line of elliptical Tors. I could compare it to nothing else than an enormous oolitic monster of the turtle kind carrying its eggs upon its back. A few cypress pine-trees grew in the interstices of the rocks, giving it a most elegant appearance. Hoping to find some rock or other reservoir of water, I rode over to this creature, or feature. Before reaching its foot, I came upon a small piece of open, firm, grassy ground, most beautifully variegated with many-coloured vegetation, with a small bare piece of ground in the centre, with rain water lying on it. The place was so exquisitely lovely it seemed as if only rustic garden seats were wanting, to prove that it had been laid out by the hand of man. But it was only an instance of one of Nature's freaks, in which she had so successfully imitated her imitator, Art. I watered my horse and left him to graze on this delectable spot, while I climbed the oolitic's back. There was not sufficient water in the garden for all my horses, and it was actually necessary for me to find more, or else the region would be untenable.

The view from this hill was wild and strange; the high, bald forehead of the mountain was still four or five miles away, the country between being all scrub. The creek came from the south-westward, and was lost in the scrubs to the east of north. A thick and vigorous clump of eucalypts down the creek induced me first to visit them, but the channel was hopelessly dry. Returning, I next went up the creek, and came to a place where great boulders of stone crossed the bed, and where several large-sized holes existed, but were now dry. Hard by,

however, I found a damp spot, and near it in the sand a native well, not more than two feet deep, and having water in it. Still farther up I found an overhanging rock, with a good pool of water at its foot, and I was now satisfied with my day's work. Here I camped. I made a fire at a large log lying in the creek bed; my horse was up to his eyes in most magnificent herbage, and I could not help envying him as I watched him devouring his food. I felt somewhat lonely, and cogitated that what has been written or said by cynics, solitaries, or Byrons, of the delights of loneliness, has no real home in the human heart. Nothing could appal the mind so much as the contemplation of eternal solitude. Well may another kind of poet exclaim, Oh, solitude! where are the charms that sages have seen in thy face? for human sympathy is one of the passions of human nature. Natives had been here very recently, and the scrubs were burning, not far off to the northwards, in the neighbourhood of the creek channel. As night descended, I lay me down by my bright camp fire in peace to sleep, though doubtless there are very many of my readers who would scarcely like to do the same. Such a situation might naturally lead one to consider how many people have lain similarly down at night, in fancied security, to be awakened only by the enemies' tomahawk crashing through their skulls. Such thoughts, if they intruded themselves upon my mind, were expelled by others that wandered away to different scenes and distant friends, for this Childe Harold also had a mother not forgot, and sisters whom he loved, but saw them not, ere yet his weary pilgrimage begun.

Dreams also, between sleeping and waking, passed swiftly through my brain, and in my lonely sleep I had real dreams, sweet, fanciful, and bright, mostly connected with the enterprise upon which I had embarked—dreams that I had wandered into, and was passing through, tracts of fabulously lovely glades, with groves and grottos green, watered by never-failing streams of crystal, dotted with clusters of magnificent palm-trees, and having groves, charming groves, of the fairest of pines, of groves "whose rich trees wept odorous gums and balm."

"And all throughout the night there reigned the sense
Of waking dream, with luscious thoughts o'erladen;
Of joy too conscious made, and too intense,
By the swift advent of this longed-for aidenn."

On awaking, however, I was forced to reflect, how "mysterious are these laws! the vision's finer than the view: her landscape Nature never draws so fair as fancy drew." The morning was cold, the thermometer stood at 28°, and now—

"The morn was up again, the dewy morn;
With breath all incense, and with cheek all bloom,
Laughing the clouds away with playful scorn,
And smiling, as if earth contained no tomb:
And glowing into day."

With this charming extract from Byron for breakfast I saddled my horse, having nothing more to detain me here, intending to bring up the whole party as soon as possible.

I now, however, returned by a more southerly route, and found the scrubs less thick, and came to some low red rises in them. Having travelled east, I now turned on the bearing for the tea-tree creek,

where the party ought now to be. At six miles on this line I came upon some open ground, and saw several emus. This induced me to look around for water, and I found some clay-pans with enough water to last a week. I was very well pleased, as this would save time and trouble in digging at the tea-tree. The water here was certainly rather thick, and scarcely fit for human organisms, at least for white ones, though it might suit black ones well enough, and it was good enough for our horses, which was the greatest consideration. I rested my horse here for an hour, and then rode to the tea-tree. The party, however, were not there, and I waited in expectation of their arrival. In about an hour Mr. Tietkens came and informed me that on his return to the camp the other day he had found a nice little water, six miles from here, and where the party was, and to which we now rode together. At this agreeable little spot were the three essentials for an explorer's camp—that is to say, wood, water, and grass. From there we went to my clay pans, and the next day to my lonely camp of dreams. This, the 30th August, was an auspicious day in our travels, it being no less than Mr. Tietkens's nine-and-twentieth birthday. We celebrated it with what honours the expedition stores would afford, obtaining a flat bottle of spirits from the medical department, with which we drank to his health and many happier returns of the day. In honour of the occasion I called this Tietkens's Birthday Creek, and hereby proclaim it unto the nations that such should be its name for ever. The camp was not moved, but Mr. Tietkens and I rode over to the high mountain to-day, taking with us all the apparatus neces-

TIETKENS'S BIRTHDAY CREEK, AND MOUNT CARNARVON. [*Page* 168, *Vol. I.*

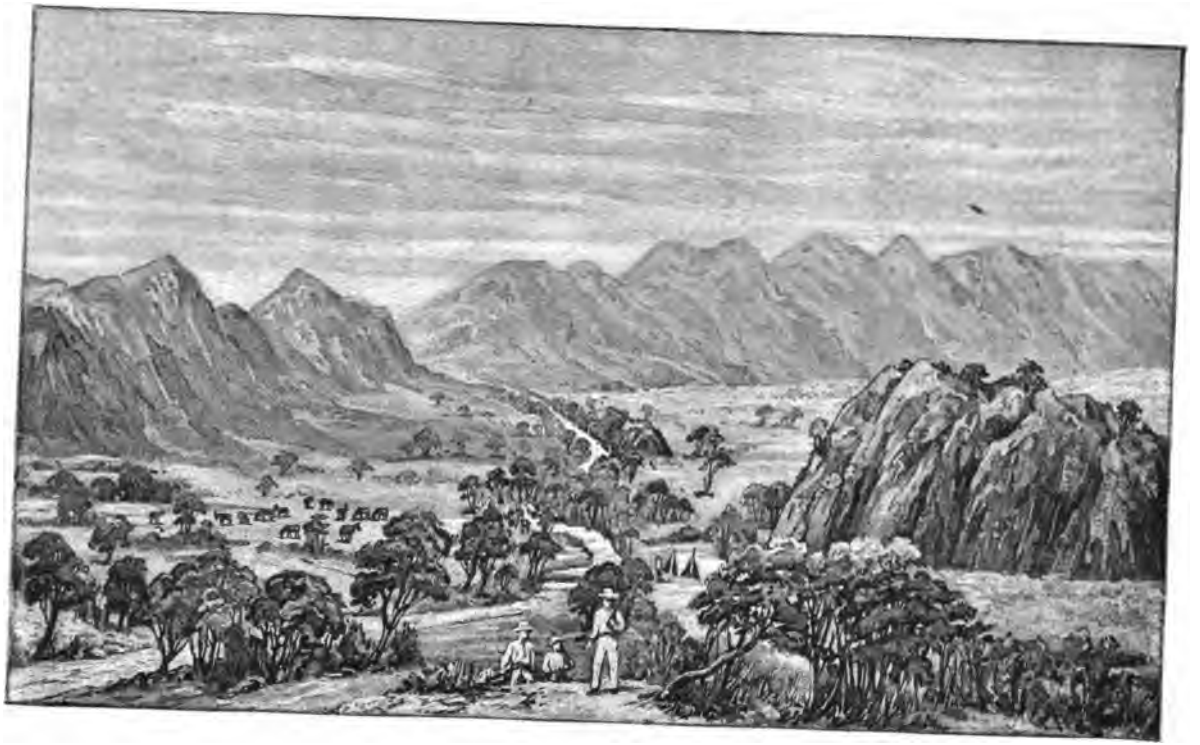
sary for so great an ascent—that is to say, thermometer, barometer, compass, field glasses, quart pot, water-bag, and matches. In about four miles we reached its foot, and found its sides so bare and steep that I took off my boots for the ascent. It was formed for the most part like a stupendous turtle back, of a conglomerate granite, with no signs of water, or any places that would retain it for a moment, round or near its base. Upon reaching its summit, the view was most extensive in every direction except the west, and though the horizon was bounded in all directions by ranges, yet scrubs filled the entire spaces between. To the north lay a long and very distant range, which I thought might be the Gill's Range of my last expedition, though it would certainly be a stretch either of imagination or vision, for that range was nearly 140 miles away.

To the north-westward was a flat-topped hill, rising like a table from an ocean of scrub; it was very much higher than such hills usually are. This was Mount Conner. To the south, and at a considerable distance away, lay another range of some length, apparently also of considerable altitude. I called this the Everard Range. The horizon westward was bounded by a continuous mass of hills or mountains, from the centre of which Birthday Creek seemed to issue. Many of the mounts westward appeared of considerable elevation. The natives were burning the scrubs west and north-west. On the bare rocks of this mountain we saw several white, bleached snail-shells. I was grieved to find that my barometer had met with an accident in our climb; however, by testing the boiling point of water I obtained the altitude.

Water boiled at 206°, giving an elevation of 3085 feet above the level of the sea, it being about 1200 feet above the surrounding country. The view of Birthday Creek winding along in little bends through the scrubs from its parent mountains, was most pleasing. Down below us were some very pretty little scenes. One was a small sandy channel, like a plough furrow, with a few eucalyptus trees upon it, running from a ravine near the foot of this mount, which passed at about a mile through two red mounds of rock, only just wide enough apart to admit of its passage. A few cypress pines were growing close to the little gorge. On any other part of the earth's surface, if, indeed, such another place could be found, water must certainly exist also, but here there was none. We had a perfect bird's-eye view of the spot. We could only hope, for beauty and natural harmony's sake, that water must exist, at least below the surface, if not above. Having completed our survey, we descended barefooted as before.

On reaching the camp, Gibson and Jimmy had shot some parrots and other birds, which must have flown down the barrels of their guns, otherwise they never could have hit them, and we had an excellent supper of parrot soup. Just here we have only seen parrots, magpies, and a few pigeons, though plenty of kangaroo, wallaby, and emu; but have not succeeded in bagging any of the latter game, as they are exceedingly shy and difficult to approach, from being so continually hunted by the natives. I named this very singular feature Mount Carnarvon, or The Sentinel, as soon I found

> "The mountain there did stand
> T sentinel enchanted land."



ON BIRTHDAY CREEK.

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The night was cold; mercury down to 26°. What little dew fell became frosted; there was not sufficient to call it frozen. I found my position here to be in latitude 26° 3′, longitude 132° 29′.

In the night of the 1st September, heavy clouds were flying fastly over us, and a few drops of rain fell at intervals. About ten o'clock P.M. I observed a lunar rainbow in the northern horizon; its diameter was only about fifteen degrees. There were no prismatic colours visible about it. To-day was clear, fine, but rather windy. We travelled up the creek, skirting its banks, but cutting off the bends. We had low ridges on our right. The creek came for some distance from the south-west, then more southerly, then at ten miles, more directly from the hills to the west. The country along its banks was excellent, and the scenery most beautiful—pine-clad, red, and rocky hills being scattered about in various directions, while further to the west and south-west the high, bold, and very rugged chain rose into peaks and points. We only travelled sixteen miles, and encamped close to a pretty little pine-clad hill, on the north bank of the creek, where some rocks traversed the bed, and we easily obtained a good supply of water. The grass and herbage being magnificent, the horses were in a fine way to enjoy themselves.

This spot is one of the most charming that even imagination could paint. In the background were the high and pointed peaks of the main chain, from which sloped a delightful green valley; through this the creek meandered, here and there winding round the foot of little pine-clad hills of unvarying red colour, whilst the earth from which they sprung

was covered with a carpet of verdure and vegetation of almost every imaginable hue. It was happiness to lie at ease upon such a carpet and gaze upon such a scene, and it was happiness the more ecstatic to know that I was the first of a civilised race of men who had ever beheld it. My visions of a former night really seemed to be prophetic. The trend of the creek, and the valley down which it came, was about 25° south of west. We soon found it became contracted by impinging hills. At ten miles from camp we found a pool of water in the bed. In about a couple of miles farther, to my surprise I found we had reached its head and its source, which was the drainage of a big hill. There was no more water and no rock-holes, neither was there any gorge. Some triodia grew on the hills, but none on the lower ground. The valley now changed into a charming amphitheatre. We had thus traced our Birthday Creek, to its own birthplace. It has a short course, but a merry one, and had ended for us at its proper beginning. As there appeared to be no water in the amphitheatre, we returned to the pool we had seen in the creek. Several small branch creeks running through pretty little valleys joined our creek to-day. We were now near some of the higher cones of the main chain, and could see that they were all entirely timberless, and that triodia grew upon their sides. The spot we were now encamped upon was another scene of exquisite sylvan beauty. We had now been a month in the field, as to-morrow was the 4th of September, and I could certainly congratulate myself upon the result of my first month's labour.

The night was cold and windy, dense nimbus clouds hovered just above the mountain peaks, and threatened a heavy downpour of rain, but the driving gale scattered them into the gelid regions of space, and after sunrise we had a perfectly clear sky. I intended this morning to push through what seemed now, as it had always seemed from the first moment I saw this range, a main gap through the chain. Going north round a pointed hill, we were soon in the trend of the pass; in five miles we reached the banks of a new creek, running westerly into another, or else into a large eucalyptus flat or swamp, which had no apparent outlet. This heavy timber could be seen for two or three miles. Advancing still further, I soon discovered that we were upon the reedy banks of a fast flowing stream, whose murmuring waters, ever rushing idly and unheeded on, were now for the first time disclosed to the delighted eyes of their discoverer.

Here I had found a spot where Nature truly had

"Shed o'er the scene her purest of crystal, her brightest of green."

This was really a delightful discovery. Everything was of the best kind here—timber, water, grass, and mountains. In all my wanderings, over thousands of miles in Australia, I never saw a more delightful and fanciful region than this, and one indeed where a white man might live and be happy. My dreams of a former night were of a verity realised.

Geographically speaking, we had suddenly come almost upon the extreme head of a large watercourse. Its trend here was nearly south, and I found it now ran through a long glen in that direction.

We saw several fine pools and ponds, where the reeds opened in the channel, and we flushed up and shot several lots of ducks. This creek and glen I have named respectively the Ferdinand and Glen Ferdinand, after the Christian name of Baron von Mueller.* The glen extended nearly five miles, and where it ended, the water ceased to show upon the surface. At the end of the glen we encamped, and I do not remember any day's work during my life which gave me more pleasure than this, for I trust it will be believed that—

"The proud desire of sowing broad the germs of lasting worth
Shall challenge give to scornful laugh of careless sons of earth;
Though mirth deride, the pilgrim feet that tread the desert plain,
The thought that cheers me onward is, I have not lived in vain."

After our dinner Mr. Tietkens and I ascended the highest mountain in the neighbourhood—several others not far away were higher, but this was the most convenient. Water boiled at its summit at 204°, which gives an altitude above sea level of 4131 feet, it being about 1500 feet above the surrounding country. I called this Mount Ferdinand, and another higher point nearly west of it I called Mount James-Winter.* The view all round from west to north was shut out. To the south and south-east other ranges existed. The timber of the Ferdinand could be traced for many miles in a southerly direction; it finally became lost in the distance in a timbered if not a scrubby country. This mountain was highly magnetic. I

* The names having a star against them in this book denote contributors to the fund raised by Baron Mueller * for this expedition.—E. G.

am surprised at seeing so few signs of natives in this region. We returned to the camp and sowed seeds of many cereals, fodder plants, and vegetables. A great quantity of tea-tree grew in this glen. The water was pure and fresh.

Two or three miles farther down, the creek passed between two hills; the configuration of the mountains now compelled me to take a south-westerly valley for my road. In a few miles another fine creek-channel came out of the range to the north of us, near the foot of Mount James-Winter; it soon joined a larger one, up which was plenty of running water; this I called the Reid.* We were now traversing another very pretty valley running nearly west, with fine cotton and salt-bush flats, while picturesque cypress pines covered the hills on both sides of us. Under some hills which obstructed our course was another creek, where we encamped, the grass and herbage being most excellent; and this also was a very pretty place. Our latitude here was 26° 24′.

Gibson went away on horseback this morning to find the others, but came back on foot to say he had lost the one he started with. We eventually got them all, and proceeded down the creek south, then through a little gap west, on to the banks of a fine large creek with excellent timber on it. The natives were burning the grass up the channel north-westerly. Mr. Tietkens and I rode up in advance to reconnoitre; we went nearly three miles, when we came to running water. At the same time we evidently disturbed a considerable number of natives, who raised a most frightful outcry at our sudden and unexpected advent amongst them. Those

nearest to us walked slowly into the reeds, rushes, tea-trees, and high salt bushes, but deliberately watching our every movement. While watering our horses a great many from the outskirts ran at us, poising and quivering their spears, some of which were over ten feet long; of these, every individual had an extraordinary number. When they saw us sitting quietly, but not comfortably, on our horses, which became very frightened and impatient, they renewed their horrible yells and gesticulations, some waving us away, others climbing trees, and directing their spears at us from the branches. Another lot on the opposite side of the creek now came rushing up with spears advanced and ensigns spread, and with their yells and cries encouraged those near to spear us. They seemed, however, to have some doubts of the nature or vulnerability of our horses. At the head of our new assailants was one sophisticated enough to be able to call out, "Walk, white fellow, walk;" but as we still remained immobile, he induced some others to join in making a rush at us, and they hurled their jagged spears at us before we could get out of the way. It was fortunate indeed that we were at the extreme distance that these weapons can be projected, for they struck the ground right amongst our horses' hoofs, making them more restive than ever.

I now let our assailants see we were not quite so helpless as they might have supposed. I unslipped my rifle, and the bullet, going so suddenly between two of these worthies and smashing some boughs just behind them, produced silence amongst the whole congregation, at least for a moment. All this time we were anxiously awaiting the arrival of

ENCOUNTER WITH THE NATIVES AT "THE OFFICER," MUSGRAVE RANGE. [*Page 176, Vol. I.*

Gibson and Jimmy, as my instructions were that if we did not return in a given time, they were to follow after us. But these valiant retainers, who admitted they heard the firing, preferred to remain out of harm's way, leaving us to kill or be killed, as the fortunes of war might determine; and we at length had to retreat from our sable enemies, and go and find our white friends. We got the mob of horses up, but the yelling of these fiends in human form, the clouds of smoke from the burning grass and bushes, and the many disagreeable odours incident to a large native village, and the yapping and howling of a lot of starving dogs, all combined to make us and our horses exceedingly restless. They seemed somewhat overawed by the number of the horses, and though they crowded round from all directions, for there were more than 200 of them, the women and children being sent away over the hills at our first approach, they did not then throw any more spears. I selected as open a piece of ground as I could get for the camp, which, however, was very small, back from the water, and nearly under the foot of a hill. When they saw us dismount, for I believe they had previously believed ourselves and our horses to form one animal, and begin to unload the horses, they proceeded properly to work themselves up for a regular onslaught. So long as the horses remained close, they seemed disinclined to attack, but when they were hobbled and went away, the enemy made a grand sortie, rushing down the hill at the back of the camp where they had congregated, towards us in a body with spears fitted in pose and yelling their war cries.

Our lives were in imminent danger; we had out

all the firearms we could muster; these amounted to two rifles, two shot guns, and five revolvers. I watched with great keenness the motion of their arms that gives the propulsion to their spears, and the instant I observed that, I ordered a discharge of the two rifles and one gun, as it was no use waiting to be speared first. I delayed almost a second too long, for at the instant I gave the word several spears had left the enemy's hands, and it was with great good fortune we avoided them. Our shots, as I had ordered, cut up the ground at their feet, and sent the sand and gravel into their eyes and faces; this and the noise of the discharge made the great body of them pause. Availing ourselves of this interval, we ran to attack them, firing our revolvers in quick succession as we ran. This, with the noise and the to them extraordinary phenomenon of a projectile approaching them which they could not see, drove them up into the hills from which they had approached us, and they were quiet for nearly an hour, except for their unceasing howls and yells, during which time we made an attempt at getting some dinner. That meal, however, was not completed when we saw them stealing down on us again. Again they came more than a hundred strong, with heads held back, and arms at fullest tension to give their spears the greatest projective force, when, just as they came within spear shot, for we knew the exact distance now, we gave them another volley, striking the sand up just before their feet; again they halted, consulting one another by looks and signs, when the discharge of Gibson's gun, with two long-distance cartridges, decided them, and they ran back, but only to come again.

In consequence of our not shooting any of them, they began to jeer and laugh at us, slapping their backsides at and jumping about in front of us, and indecently daring and deriding us. These were evidently some of those lewd fellows of the baser sort (Acts xvii. 5).

We were at length compelled to send some rifle bullets into such close proximity to some of their limbs that at last they really did believe we were dangerous folk after all. Towards night their attentions ceased, and though they camped just on the opposite side of the creek, they did not trouble us any more. Of course we kept a pretty sharp watch during the night. The men of this nation were tall, big, and exceedingly hirsute, and in excellent bodily condition. They reminded me of, as no doubt they are, the prototypes of the account given by the natives of the Charlotte Waters telegraph station, on my first expedition, who declared that out to the west were tribes of wild blacks who were cannibals, who were covered with hair, and had long manes hanging down their backs.

None of these men, who perhaps were only the warriors of the tribe, were either old or grey-haired, and although their features in general were not handsome, some of the younger ones' faces were prepossessing. Some of them wore the chignon, and others long curls; the youngest ones who wore curls looked at a distance like women. A number were painted with red ochre, and some were in full war costume, with feathered crowns and head dresses, armlets and anklets of feathers, and having alternate stripes of red and white upon the upper portions of their bodies; the majority of course

were in undress uniform. I knew as soon as I arrived in this region that it must be well if not densely populated, for it is next to impossible in Australia for an explorer to discover excellent and well-watered regions without coming into deadly conflict with the aboriginal inhabitants. The aborigines are always the aggressors, but then the white man is a trespasser in the first instance, which is a cause sufficient for any atrocity to be committed upon him. I named this encounter creek The Officer.* There was a high mount to the north-east from here, which lay nearly west from Mount James-Winter, which I called Mount Officer.*

Though there was a sound of revelry or devilry by night in the enemy's camp, ours was not passed in music, and we could not therefore listen to the low harmonics that undertone sweet music's roll. Gibson got one of the horses which was in sight, to go and find the others, while Mr. Tietkens took Jimmy with him to the top of a hill in order to take some bearings for me, while I remained at the camp. No sooner did the natives see me alone than they recommenced their malpractices. I had my arsenal in pretty good fighting order, and determined, if they persisted in attacking me, to let some of them know the consequences. I was afraid that some might spear me from behind while others engaged me in front. I therefore had to be doubly on the alert. A mob of them came, and I fired in the air, then on the ground, at one side of them and then at the other. At last they fell back, and when the others and the horses appeared, though they kept close round us, watching every movement, yelling perpetually, they desisted from further

attack. I was very gratified to think afterwards that no blood had been shed, and that we had got rid of our enemies with only the loss of a little ammunition. Although this was Sunday, I did not feel quite so safe as if I were in a church or chapel, and I determined not to remain. The horses were frightened at the incessant and discordant yells and shrieks of these fiends, and our ears also were perfectly deafened with their outcries.

We departed, leaving the aboriginal owners of this splendid piece of land in the peaceful possession of their beautiful hunting grounds, and travelled west through a small gap into a fine valley. The main range continued stretching away north of us in high and heavy masses of hills, and with a fine open country to the south. At ten miles we came to another fine creek, where I found water running; this I called the Currie.* It was late when, in six miles further, we reached another creek, where we got water and a delightful camp. I called this the Levinger.* The country to-day was excellent, being fine open, grassy valleys all the way; all along our route in this range we saw great quantities of white snail-shells, in heaps, at old native encampments, and generally close to their fireplaces. In crevices and under rocks we found plenty of the living snails, large and brown; it was evident the natives cook and eat them, the shells turning white in the fire, also by exposure to the sun. On starting again we travelled about west-north-west, and we passed through a piece of timbered country; at twelve miles we arrived at another fine watercourse. The horses were almost unmanageable with flashness, running about with

their mouths full of the rich herbage, kicking up their heels and biting at one another, in a perfect state of horse-play. It was almost laughable to see them, with such heavy packs on their backs, attempting such elephantine gambols; so I kept them going, to steady them a bit. The creek here I called Winter* Water. At five miles farther we passed a very high mountain in the range, which appeared the highest I had seen; I named it Mount Davenport. We next passed through a small gap, over a low hill, and immediately on our appearance we heard the yells and outcries of natives down on a small flat below. All we saw, however, was a small, and I hope happy, family, consisting of two men, one woman, and another youthful individual, but whether male or female I was not sufficiently near to determine. When they saw us descend from the little hill, they very quickly walked away, like respectable people. Continuing our course in nearly the same direction, west-north-west, and passing two little creeks, I climbed a small hill and saw a most beautiful valley about a mile away, stretching north-west, with eucalyptus or gum timber up at the head of it. The valley appeared entirely enclosed by hills, and was a most enticing sight. Travelling on through 200 or 300 yards of mulga, we came out on the open ground, which was really a sight that would delight the eyes of a traveller, even in the Province of Cashmere or any other region of the earth. The ground was covered with a rich carpet of grass and herbage; conspicuous amongst the latter was an abundance of the little purple vetch, which, spreading over thousands of acres of ground, gave a lovely

pink or magenta tinge to the whole scene. I also saw that there was another valley running nearly north, with another creek meandering through it, apparently joining the one first seen.

Passing across this fairy space, I noticed the whitish appearances that usually accompany springs and flood-marks in this region. We soon reached a most splendid kind of stone trough, under a little stony bank, which formed an excellent spring, running into and filling the little trough, running out at the lower end, disappearing below the surface, evidently perfectly satisfied with the duties it had to perform.

This was really the most delightful spot I ever saw; a region like a garden, with springs of the purest water spouting out of the ground, ever flowing into a charming little basin a hundred yards long by twenty feet wide and four feet deep. There was a quantity of the tea-tree bush growing along the various channels, which all contained running water.

The valley is surrounded by picturesque hills, and I am certain it is the most charming and romantic spot I ever shall behold. I immediately christened it the Fairies' Glen, for it had all the characteristics to my mind of fairyland. Here we encamped. I would not have missed finding such a spot, upon—I will not say what consideration. Here also of course we saw numbers of both ancient and modern native huts, and this is no doubt an old-established and favourite camping ground. And how could it be otherwise? No creatures of the human race could view these scenes with apathy or dislike, nor would any sentient beings

part with such a patrimony at any price but that of their blood. But the great Designer of the universe, in the long past periods of creation, permitted a fiat to be recorded, that the beings whom it was His pleasure in the first instance to place amidst these lovely scenes, must eventually be swept from the face of the earth by others more intellectual, more dearly beloved and gifted than they. Progressive improvement is undoubtedly the order of creation, and we perhaps in our turn may be as ruthlessly driven from the earth by another race of yet unknown beings, of an order infinitely higher, infinitely more beloved, than we. On me, perchance, the eternal obloquy of the execution of God's doom may rest, for being the first to lead the way, with prying eye and trespassing foot, into regions so fair and so remote; but being guiltless alike in act or intention to shed the blood of any human creature, I must accept it without a sigh.

The night here was cold, the mercury at daylight being down to 24°, and there was ice on the water or tea left in the pannikins or billies overnight.

This place was so charming that I could not tear myself away. Mr. Tietkens and I walked to and climbed up a high mount, about three miles north-easterly from camp; it was of some elevation. We ascended by a gorge having eucalyptus and callitris pines halfway up. We found water running from one little basin to another, and high up, near the summit, was a bare rock over which water was gushing. To us, as we climbed towards it, it appeared like a monstrous diamond hung in mid-air, flashing back the rays of the morning sun. I called this Mount Oberon, after Shakespeare's King of

THE FAIRIES' GLEN. [*Page* 184, *Vol. I.*

the Fairies. The view from its summit was limited. To the west the hills of this chain still run on; to the east I could see Mount Ferdinand. The valley in which the camp and water was situate lay in all its loveliness at our feet, and the little natural trough in its centre, now reduced in size by distance, looked like a silver thread, or, indeed, it appeared more as though Titania, the Queen of the Fairies, had for a moment laid her magic silver wand upon the grass, and was reposing in the sunlight among the herbage and the flowers. The day was lovely, the sky serene and clear, and a gentle zephyr-like breeze merely agitated the atmosphere. As we sat gazing over this delightful scene, and having found also so many lovely spots in this chain of mountains, I was tempted to believe I had discovered regions which might eventually support, not only flocks and herds, but which would become the centres of population also, each individual amongst whom would envy me as being the first discoverer of the scenes it so delighted them to view. For here were—

> "Long dreamy lawns, and birds on happy wings
> Keeping their homes in never-rifled bowers;
> Cool fountains filling with their murmurings
> The sunny silence 'twixt the charming hours."

In the afternoon we returned to the camp, and again and again wondered at the singular manner in which the water existed here. Five hundred yards above or below there is no sign of water, but in that intermediate space a stream gushes out of the ground, fills a splendid little trough, and gushes into the ground again: emblematic indeed of the ephemeral existence of humanity—we rise out of the

dust, flash for a brief moment in the light of life, and in another we are gone. We planted seeds here; I called it Titania's Spring, the watercourse in which it exists I called Moffatt's* Creek.

The night was totally different from the former, the mercury not falling below 66°. The horses upon being brought up to the camp this morning on foot, displayed such abominable liveliness and flashness, that there was no catching them. One colt, Blackie, who was the leader of the riot, I just managed at length to catch, and then we had to drive the others several times round the camp at a gallop, before their exuberance had in a measure subsided. It seemed, indeed, as if the fairies had been bewitching them during the night. It was late when we left the lovely spot. A pretty valley running north-west, with a creek in it, was our next road; our track wound about through the most splendidly grassed valleys, mostly having a trend westerly. At twelve miles we saw the gum timber of a watercourse, apparently debouching through a glen. Of course there was water, and a channel filled with reeds, down which the current ran in never-failing streams. This spot was another of those charming gems which exist in such numbers in this chain. This was another of those "secret nooks in a pleasant land, by the frolic fairies planned." I called the place Glen Watson.* From a hill near I discovered that this chain had now become broken, and though it continues to run on still farther west, it seemed as though it would shortly end. The Mount Olga of my former expedition was now in view, and bore north 17° west, a considerable distance away. I was most anxious to

visit it. On my former journey I had made many endeavours to reach it, but was prevented; now, however, I hoped no obstacle would occur, and I shall travel towards it to-morrow. There was more than a mile of running water here, the horses were up to their eyes in the most luxuriant vegetation, and our encampment was again in a most romantic spot. Ah! why should regions so lovely be traversed so soon? This chain of mountains is called the Musgrave Range. A heavy dew fell last night, produced, I imagine, by the moisture in the glen, and not by extraneous atmospheric causes, as we have had none for some nights previously.

CHAPTER III.

FROM 10TH SEPTEMBER TO 30TH SEPTEMBER, 1873.

Leave for Mount Olga—Change of scene—Desert oak-trees—The Mann range—Fraser's Wells—Mount Olga's foot—Gosse's expedition—Marvellous mountain—Running water—Black and gold butterflies—Rocky bath—Ayers' Rock—Appearance of Mount Olga—Irritans camp—Sugar-loaf Hill—Collect plants—Peaches—A patch of better country—A new creek and glen—Heat and cold—A pellucid pond—Zoe's Glen—Christy Bagot's Creek—Stewed ducks—A lake—Hector's Springs and Pass—Lake Wilson—Stevenson's Creek—Milk thistles—Beautiful amphitheatre—A carpet of verdure—Green swamp—Smell of camels—How I found Livingstone—Gabriel Daniel Fahrenheit—Cotton and salt bush flats—The Champ de Mars—Sheets of water—Peculiar tree—Pleasing scene—Harriet's Springs—Water in grass—Ants and burrs—Mount Aloysius—Across the border—The Bell Rock.

We left this pretty glen with its purling stream and reedy bed, and entered very shortly upon an entirely different country, covered with porcupine grass. We went north-west to some ridges at seventeen miles, where there was excellent vegetation, but no water. I noticed to-day for the first time upon this expedition some of the desert oak trees (Casuarina Decaisneana). Nine miles farther we reached a round hill, from which Mount Olga bore north. We were still a considerable distance away, and as I did not know of any water existing at Mount Olga, I was anxious to find some,

for the horses had none where we encamped last night. From this hill I could also see that the Musgrave chain still ran on to the west; though broken and parted in masses, it rose again into high mounts and points. This continuation is called the Mann Range. Near the foot of the round hill I saw a small flat piece of rock, barely perceptible among the grass; on it was an old native fireplace and a few dead sticks. On inspection there proved to be two fine little holes or basins in the solid rock, with ample water for all my horses. Scrub and triodia existed in the neighbourhood, and the feed was very poor. These were called Fraser's Wells. Mount Olga was still fifty miles away. We now pushed on for it over some stony and some scrubby country, and had to camp without water and with wretched feed for the horses. Casuarina trees were often passed. We generally managed to get away early from a bad camp, and by the middle of the next day we arrived at the foot of Mount Olga. Here I perceived the marks of a wagon and horses, and camel tracks; these I knew at once to be those of Gosse's expedition. Gosse had come down south through the regions, and to the watering places which I discovered in my former journey. He had evidently gone south to the Mann range, and I expected soon to overtake him. I had now travelled four hundred miles to reach this mount, which, when I first saw it, was only seventy-five or eighty miles distant.

The appearance of this mountain is marvellous in the extreme, and baffles an accurate description. I shall refer to it again, and may remark here that it is formed of several vast and solid, huge, and

rounded blocks of bare red conglomerate stones, being composed of untold masses of rounded stones of all kinds and sizes, mixed like plums in a pudding, and set in vast and rounded shapes upon the ground. Water was running from the base, down a stony channel, filling several rocky basins. The water disappeared in the sandy bed of the creek, where the solid rock ended. We saw several quandongs, or native peach-trees, and some native poplars on our march to-day. I made an attempt to climb a portion of this singular mound, but the sides were too perpendicular; I could only get up about 800 or 900 feet, on the front or lesser mound; but without kites and ropes, or projectiles, or wings, or balloons, the main summit is unscaleable. The quandong fruit here was splendid—we dried a quantity in the sun. Some very beautiful black and gold butterflies, with very large wings, were seen here and collected. The thermometer to-day was 95° in the shade. We enjoyed a most luxurious bath in the rocky basins. We moved the camp to softer ground, where there was a well-grassed flat a mile and a half away. To the east was a high and solitary mound, mentioned in my first journal as ranges to the east of Mount Olga, and apparently lying north and south; this is called Ayers' Rock; I shall have to speak of it farther on. To the west-south-west were some pointed ridges, with the long extent of the Mann Ranges lying east and west, far beyond them to the south.

The appearance of Mount Olga from this camp is truly wonderful; it displayed to our astonished eyes rounded minarets, giant cupolas, and monstrous

domes. There they have stood as huge memorials of the ancient times of earth, for ages, countless eons of ages, since its creation first had birth. The rocks are smoothed with the attrition of the alchemy of years. Time, the old, the dim magician, has ineffectually laboured here, although with all the powers of ocean at his command; Mount Olga has remained as it was born; doubtless by the agency of submarine commotion of former days, beyond even the epoch of far-back history's phantom dream. From this encampment I can only liken Mount Olga to several enormous rotund or rather elliptical shapes of rouge mange, which had been placed beside one another by some extraordinary freak or convulsion of Nature. I found two other running brooks, one on the west and one on the north side. My first encampment was on the south. The position of this extraordinary feature is in latitude 25° 20′ and longitude 130° 57′.

Leaving the mountain, we next traversed a region of sandy soil, rising into sandhills, with patches of level ground between. There were casuarinas and triodia in profusion—two different kinds of vegetation which appear to thoroughly enjoy one another's company. We went to the hills south-south-westerly, and had a waterless camp in the porcupine, triodia, spinifex, Festuca irritans, and everything-else-abominable, grass; 95° in shade. At about thirty-two miles from Mount Olga we came to the foot of the hills, and I found a small supply of water by digging; but at daylight next morning there was not sufficient for half the horses, so I rode away to look for more; this I found in a channel coming from a sugar-loaf or high-

peaked hill. It was a terribly rough and rocky place, and it was too late to get the animals up to the ledges where the water was, and they had to wait till next day.

From here I decided to steer for a notch in the Mann Range, nearly south-west. The country consisted chiefly of sandhills, with casuarina and flats with triodia. We could get no water by night. I collected a great quantity of various plants and flowers along all the way I had come in fact, but just about Mount Olga I fancied I had discovered several new species. To-day we passed through some mallee, and gathered quandongs or native peach, which, with sugar, makes excellent jam; we also saw currajongs and native poplars. We now turned to some ridges a few miles nearer than the main range, and dug a tank, for the horses badly wanted water. A very small quantity drained in, and the animals had to go a second night unwatered. It was now the 22nd of September, and I had hoped to have some rain at the equinox, but none had yet fallen. The last two days have been very warm and oppressive. The country round these ridges was very good, and plenty of the little purple vetch grew here. The tank in the morning was quite full; it however watered only seventeen horses, but by twelve o'clock all were satisfied, and we left the tank for the benefit of those whom it might concern.

We were steering for an enticing-looking glen between two high hills about south-south-west. We passed over sandhills, through scrubs, and eventually on to open ground. At two or three miles from the new range we crossed a kind of dry swamp or water flat, being the end of a gum creek.

A creek was seen to issue from the glen as we approached, and at twelve miles from our last camp we came upon running water in the three channels which existed. The day was warm, 94°. The water was slightly brackish. Heat and cold are evidently relative perceptions, for this morning,

ZOE'S GLEN.

although the thermometer stood at 58°, I felt the atmosphere exceedingly cold. We took a walk up the glen whence the creek flows, and on to some hills which environ it. The water was rushing rapidly down the glen; we found several fine rock-

basins—one in particular was nine or ten feet deep, the pellucid element descending into it from a small cascade of the rocks above; this was the largest sheet of water per se I had yet discovered upon this expedition. It formed a most picturesque and delightful bath, and as we plunged into its transparent depths we revelled, as it were, in an almost newly discovered element. I called this charming spot Zoe's Glen. In our wanderings up the glen we had found books in the running brooks, and sermons in stones. The latitude of this pretty little retreat was 25° 59′. I rode a mile or two to the east to inspect another creek; its bed was larger than ours, and water was running down its channel. I called it Christy Bagot's Creek. I flushed up a lot of ducks, but had no gun. On my return Gibson and Jimmy took the guns, and walked over on a shooting excursion; only three ducks were shot; of these we made an excellent stew. A strong gale of warm wind blew from the south all night. Leaving Zoe's Glen, we travelled along the foot of the range to the south of us; at six or seven miles I observed a kind of valley dividing this range running south, and turned down into it. It was at first scrubby, then opened out. At four miles Mr. Tietkens and I mounted a rocky rise, and he, being ahead, first saw and informed me that there was a lake below us, two or three miles away. I was very much gratified to see it, and we immediately proceeded towards it. The valley or pass had now become somewhat choked with low pine-clad stony hills, and we next came upon a running creek with some fine little sheets of water; it meandered round the piny hills and exhausted

itself upon the bosom of the lake. I called these the Hector Springs and Hector Pass after Hector Wilson.* On arrival at the lake I found its waters were slightly brackish ; there was no timber on its shores ; it lay close under the foot of the mountains, having their rocky slopes for its northern bank. The opposite shore was sandy ; numerous ducks and other water-fowl were floating on its breast. Several springs from the ranges ran into its northern shore, and on its eastern side a large creek ran in, though its timber did not grow all the way. The water was now eight or nine miles round ; it was of an oblong form, whose greatest length is east and west. When quite full this basin must be at least twenty miles in circumference ; I named this fine sheet of water Lake Wilson.* The position of this lake I made out to be in longitude 129° 52′. A disagreeable warm wind blew all day.

The morning was oppressive, the warm south wind still blowing. We left Lake Wilson, named after Sir Samuel, who was the largest contributor to this expedition fund, in its wildness, its loneliness, and its beauty, at the foot of its native mountains, and went away to some low hills south-south-west, where in nine miles we got some water in a channel I called Stevenson's* Creek. In a few miles further we found ourselves in a kind of glen where water bubbled up from the ground below. The channel had become filled with reeds, and great quantities of enormous milk or sow thistle (Sonchus oleraceous). Some of the horses got bogged in this ravine, which caused considerable delay. Eventually it brought us out into a most beautiful amphitheatre, into which

several creeks descended. This open space was covered with the richest carpet of verdure, and was a most enchanting spot. It was nearly three miles across; we went over to its southern side, and camped under the hills which fenced it there, and among them we obtained a supply of water. The grass and herbage here were magnificent. The only opening to this beautiful oval was some distance to the east; we therefore climbed over the hills to the south to get away, and came upon another fine valley running westward, with a continuous line of hills running parallel to it on the north. We made a meandering course, in a south-westerly direction, for about fifteen miles, when the hills became low and isolated, and gave but a poor look out for water. Other hills in a more continuous line bore to the north of west, to which we went. In three miles after this we came to a valley with a green swamp in the middle; it was too boggy to allow horses to approach. A round hill in another valley was reached late, and here our pack-horses, being driven in a mob in front of us, put their noses to the ground and seemed to have smelt something unusual, which proved to be Mr. Gosse's dray track. Our horses were smelling the scent of his camels from afar. The dray track was now comparatively fresh, and I had motives for following it. It was so late we had to encamp without finding the water, which I was quite sure was not far from us, and we turned out our horses hoping they might discover it in the night.

I went to sleep that night dreaming how I had met Mr. Gosse in this wilderness, and produced a parody upon 'How I found Livingstone.' We

travelled nearly thirty miles to-day upon all courses, the country passed over being principally very fine valleys, richly clothed with grass and almost every other kind of valuable herbage. Yesterday, the 28th of September, was rather a warm day; I speak by the card, for at ten o'clock at night Herr Gabriel Daniel Fahrenheit had not condescended to fall below 82°. The horses found water in the night, and in the morning looked sleek and full. I intended now, as I said before, to follow Gosse's dray track, for I knew he could not be very far in advance.

We followed the track a mile, when it turned suddenly to the south-west, down a valley with a creek in it that lay in that direction. But as a more leading one ran also in a more westerly direction, I left the dray track almost at right angles, and proceeded along the more westerly line. The valley I now traversed became somewhat scrubby with mallee and triodia. In seven or eight miles we got into much better country, lightly timbered with mulga and splendidly grassed. Here also were some cotton and salt bush flats. To my English reader I may say that these shrubs, or plants, or bushes are the most valuable fodder plants for stock known in Australia; they are varieties of the Atriplex family of plants, and whenever I can record meeting them, I do it with the greatest satisfaction. At twelve miles the hills to our north receded, and there lay stretched out before us a most beautiful plain, level as a billiard table and green as an emerald. Viewing it from the top of a hill, I could not help thinking what a glorious spot this would make for the display

of cavalry manœuvres. In my mental eye I could see

> "The rush of squadrons sweeping,
> Like whirlwinds o'er the plain;"

and mentally hear

> "The shouting of the slayers,
> The screeching of the slain."

I called this splendid circle the Champ de Mars; it is, I dare say, fifteen or sixteen miles round. The hills on the northern side were much higher than those near us, and appeared more inviting for water; so we rode across the circle to them. In a kind of gully between the hills, at four and a half miles, I found a rock-hole full of water in a triodia creek; it was seven or eight feet deep, and almost hidden amongst rocks and scrubs. The water drained into the hole from above. By the time my horses were all satisfied they had lowered it very considerably, and I did not think there would be a drink for them all in the morning; but when we took them up next day I found the rocky basin had been replenished during the night.

A valley led away from here, along the foot of the northern hills, almost west. At five miles we crossed the channel of a fine little creek, coming from thence; it had several sheets of water with rocky banks, and there were numerous ducks on the waters. The timber upon this creek was mostly blood-wood or red gum; the blood-wood has now almost entirely supplanted the other eucalypts. There was another tree of a very peculiar leaf which I have often met before, but only as a bush; here it had assumed the proportions of a tree.

This was one of the desert acacias, but which of them I could not tell. Farther on were several bare red hills, festooned with cypress pines, which always give a most pleasing tone to any Australian view. These I called Harriet's Springs. The creek meandered away down the valley amongst pine-clad hills to the south-westward, and appeared to increase in size below where we crossed it.

I ascended a hill and saw that the two lines of hills encircling the Champ de Mars had now entirely separated, the space between becoming gradually broader.

A pointed hill at the far end of the southern line bore west, and we started away for it. We continued on this west course for fifteen or sixteen miles, having the southern hills very close to our line of march. Having travelled some twenty miles, I turned up a blind gully or water-channel in a small triodia valley, and found some water lying about amongst the grass. The herbage here was splendid. Ants and burrs were very annoying, however; we have been afflicted with both of these animal and vegetable annoyances upon many occasions all through these regions. There was a high, black-looking mountain with a conical summit, in the northern line of ranges, which bore north-westward from here. I named it Mount Aloysius, after the Christian name of Sir A. F. Weld, Governor of Western Australia. We had entered the territory of the Colony of Western Australia on the last day of September; the boundary between it and South Australia being the 129th meridian of east longitude. The latitude by stars of this camp was 26° 9′. Leaving it early, we continued

upon the same line as yesterday, and towards the same hill, which we reached in five miles, and ascended. It was nearly the most westerly point of the line of hills we had been following. The summit of this hill I found to consist of great masses of rifted stone, which were either solid iron or stone coated thickly with it. The blocks rang with the sound of my iron-shod boots, while moving over them, with such a musical intonation and bell-like clang, that I called this the Bell Rock. Mount Aloysius bore north 9° west, distant about ten miles; here I saw it was quite an isolated range, as, at its eastern and western extremities, open spaces could be seen between it and any other hills.

CHAPTER IV.

FROM 30TH SEPTEMBER TO 9TH NOVEMBER, 1873.

Native encampment—Fires alight — Hogarth's Wells — Mount Marie and Mount Jeanie—Pointed ranges to the west—Chop a passage—Traces of volcanic action—Highly magnetic hills—The Leipoa ocellata—Tapping pits—Glen Osborne—Cotton-bush flats—Frowning bastion walls—Fort Mueller—A strong running stream—Natives' smokes—Gosse returning—Limestone formation—Native pheasants' nests—Egg-carrying—Mount Squires—The Mus conditor's nest—Difficulty with the horses—A small creek and native well—Steer for the west—Night work—Very desolate places—A circular storm—The Shoeing Camp—A bare hill—The Cups—Fresh-looking creek—Brine and bitter water—The desert pea—Jimmy and the natives—Natives prowling at night—Searching for water—Horses suffering from thirst—Horseflesh—The Cob—The camp on fire—Men and horses choking for water—Abandon the place—Displeasing view—Native signs—Another cup—Thermometer 106°—Return to the Cob—Old dry well—A junction from the east—Green rushes——Another waterless camp—Return to the Shoeing Camp—Intense cold—Biting dogs' noses—A nasal organ—Boiling an egg—Tietkens and Gibson return unsuccessful—Another attempt west—Country burnt by natives.

WE had now been travelling along the northern foot of the more southerly of the two lines of hills which separated, at the west end of the Champ de Mars; and on reaching the Bell Rock, this southern line ceased, while the northern one still ran on, though at diminished elevation, and we now

travelled towards two hills standing together about west-north-west. On reaching them, in thirteen miles, I found a native encampment; there were several old and new bough gunyahs, and the fires were alight at the doors ? of many of them. We could not see the people because they hid themselves, but I knew quite well they were watching us close by. There was a large bare slab of rock, in which existed two fine cisterns several feet in depth, one much longer than the other, the small one containing quite a sufficient supply for all my horses. I called these Hogarth's Wells, and the two hills Mount Marie and Mount Jeanie. I was compelled to leave one of these receptacles empty, which for ages the simple inhabitants of these regions had probably never seen dry before. Some hills lay south-westerly, and we reached them in nine miles; they were waterless. Southward the country appeared all scrub. The western horizon was broken by ranges with some high points amongst them; they were a long way off. To the west-north-west some bald ranges also ran on. I made across to them, steering for a fall or broken gap to the north-north-west. This was a kind of glen, and I found a watercourse in it, with a great quantity of tea-tree, which completely choked up the passage with good-sized trees, whose limbs and branches were so interwoven that they prevented any animal larger than a man from approaching the water, bubbling along at their feet. We had to chop a passage to it for our horses. The hills were quite destitute of timber, and were composed of huge masses of rifted granite, which could only have been so riven by seismatic action, which at

one time must have been exceedingly frequent in this region.

I may mention that, from the western half of the Musgrave Range, all the Mann, the Tomkinson, and other ranges westward have been shivered into fragments by volcanic force. Most of the higher points of all the former and latter consist of frowning masses of black-looking or intensely red ironstone, or granite thickly coated with iron. Triodia grows as far up the sides of the hills as it is possible to obtain any soil; but even this infernal grass cannot exist on solid rock; therefore all the summits of these hills are bare. These shivered masses of stone have large interstices amongst them, which are the homes, dens, or resorts of swarms of a peculiar marsupial known as the rock wallaby, which come down on to the lower grounds at night to feed. If they expose themselves in the day, they are the prey of aborigines and eagles, if at night, they fall victims to wild dogs or dingos. The rocks frequently change their contours from earthquake shocks, and great numbers of these creatures are crushed and smashed by the trembling rocks, so that these unfortunate creatures, beset by so many dangers, exist always in a chronic state of fear and anxiety, and almost perpetual motion. These hills also have the metallic clang of the Bell Rock, and are highly magnetic. In the scrubs to-day Gibson found a lowan's or scrub pheasant's nest. These birds inhabit the most waterless regions and the densest scrubs, and live entirely without water.

This bird is figured in Gould's work on Australian ornithology; it is called the Leipoa ocellata. Two specimens of these birds are preserved in the

Natural History Department of the British Museum at Kensington. We obtained six fresh eggs from it. I found another, and got five more. We saw several native huts in the scrubs, some of them of large dimensions, having limbs of the largest trees they could get to build them with. When living here, the natives probably obtain water from roots of the mulga. This must be the case, for we often see small circular pits dug at the foot of some of these trees, which, however, generally die after the operation of tapping. I called the spot Glen Osborne ; * we rested here a day. We always have a great deal of sewing and repairing of the canvas pack-bags to do, and a day of rest usually means a good day's work ; it rests the horses, however, and that is the main thing. Saturday night, the 4th October, was a delightfully cool one, and on Sunday we started for some hills in a south-westerly direction, passing some low ridges. We reached the higher ones in twenty-two miles. Nearing them, we passed over some fine cotton-bush flats, so-called from bearing a small cotton-like pod, and immediately at the hills we camped on a piece of plain, very beautifully grassed, and at times liable to inundation. It was late when we arrived ; no water could be found ; but the day was cool, and the night promised to be so too ; and as I felt sure I should get water in these hills in the morning, I was not very anxious on account of the horses. These hills are similar to those lately described, being greatly impregnated with iron and having vast upheavals of iron-coated granite, broken and lying in masses of black and pointed rock, upon all their summits. Their sides sloped somewhat

abruptly, they were all highly magnetic, and had the appearance of frowning, rough-faced, bastion walls. Very early I climbed up the hills, and from the top I saw the place that was afterwards to be our refuge, though it was a dangerous one. This is called the Cavanagh Range, but as, in speaking of it as my depot, it was called Fort Mueller,* I shall always refer to it by that name. What I saw was a strong running stream in a confined rocky, scrubby glen, and smokes from natives' fires. When bringing the horses, we had to go over less difficult ground than I had climbed, and on the road we found another stream in another valley, watered the horses, and did not then go to my first find. There was fine open, grassy country all round this range; we followed the creek down from the hills to it. On reaching the lower grassy ground, we saw Mr. Gosse's dray-track again, and I was not surprised to see that the wagon had returned upon its outgoing track, and the party were now returning eastwards to South Australia. I had for some days anticipated meeting him; but now he was going east, and I west, I did not follow back after him. Shortly afterwards, rounding the spurs of these hills, we came to the channel of the Fort Mueller creek, which I had found this morning, and though there was no surface-water, we easily obtained some by digging in the sandy creek-bed. A peculiarity of the whole of this region is, that water cannot exist far from the rocky foundations of the hills; the instant the valleys open and any soil appears, down sinks the water, though a fine stream may be running only a few yards above. Blankets were again required for the last two nights. I found my

position here to be in latitude 26° 12′, longitude 127° 59′ 0″.

Leaving this encampment, we struck away for a new line of ranges. The country was very peculiar, and different from any we had yet met; it was open, covered with tall triodia, and consisted almost entirely of limestone. At intervals, eucalyptus-trees of the mallee kind, and a few of the pretty-looking blood-wood-trees and some native poplars were seen; there was no grass for several miles, and we only found some poor dry stuff for the horses in a patch of scrub, the ground all round being stony and triodia-set. To-day we came upon three lowans' or native pheasants' nests. These birds, which somewhat resemble guinea-fowl in appearance, build extraordinarily large nests of sand, in which they deposit small sticks and leaves; here the female lays about a dozen eggs, the decomposition of the vegetable matter providing the warmth necessary to hatch them. These nests are found only in thick scrubs. I have known them five to six feet high, of a circular conical shape, and a hundred feet round the base. The first, though of enormous size, produced only two eggs; the second, four, and the third, six. We thanked Providence for supplying us with such luxuries in such a wilderness. There are much easier feats to perform than the carrying of lowans' eggs, and for the benefit of any readers who don't know what those eggs are like, I may mention that they are larger than a goose egg, and of a more delicious flavour than any other egg in the world. Their shell is beautifully pink tinted, and so terribly fragile that, if a person is not careful in lifting them, the fingers will crunch through the

tinted shell in an instant. Therefore, carrying a dozen of such eggs is no easy matter. I took upon myself the responsibility of bringing our prize safe into camp, and I accomplished the task by packing them in grass, tied up in a handkerchief, and slung round my neck; a fine fardel hanging on my chest, immediately under my chin. A photograph of a person with such an appendage would scarcely lead to recognition. We used some of the eggs in our tea as a substitute for milk. A few of the eggs proved to possess some slight germs of vitality, the preliminary process being the formation of eyes. But explorers in the field are not such particular mortals as to stand upon such trifles; indeed, par-boiled, youthful, lowans' eyes are considered quite a delicacy in the camp.

At early dawn there was brilliant lightning to the west, and the horizon in that direction became cloudy. Thunder also was heard, but whatever storm there might have been, passed away to the south of us. In the course of a few miles we left the limestone behind, and sandhills again came on. We went over two low ridges, and five or six miles of scrub brought us to the hills we were steering for. Some pine-clad bare rocks induced us to visit them to see if there were rock-holes anywhere. Mr. Tietkens found a native well under one of the rocks, but no water was seen in it, so we went to the higher hills, and in a gully found but a poor supply. There was every appearance of approaching rain, and we got everything under canvas, but in the night of the 9th October a heavy gale of wind sprang up and blew away any rain that might

have fallen. As, however, it was still cloudy, we remained in camp.

From the highest hill here, called Mount Squires, the appearance of the country surrounding was most strange. To the west, and round by north-west to north, was a mass of broken timbered hills with scrubby belts between. The atmosphere was too hazy to allow of distinct vision, but I could distinguish lines of hills, if not ranges, to the westward for a long distance. The view was by no means encouraging, but as hills run on, though entirely different now from those behind us, our only hope is that water may yet be discovered in them. The whole region round about was enveloped in scrubs, and the hills were not much more than visible above them.

The sky had remained cloudy all yesterday, and I hoped, if the wind would only cease, rain would surely fall; so we waited and hoped against hope. We had powerful reverberations of thunder, and forked and vivid lightnings played around, but no rain fell, although the atmosphere was surcharged with electricity and moisture. The wished-for rain departed to some far more favoured places, some happier shores from these remote; and as if to mock our wishes, on the following morning we had nearly three minutes' sprinkling of rain, and then the sky became clear and bright.

By this time we had used up all the water we could find, and had to go somewhere else to get more. A terrible piece of next-to-impassable scrub, four or five miles through, lay right in our path; it also rose and fell into ridges and gullies in it. We

saw one of the Mus conditor, or building rats' nests, which is not the first we have seen by many on this expedition. The scrub being so dense, it was impossible to see more than two or three of the horses at a time, and three different times some of them got away and tried to give us the slip; this caused a great deal of anxiety and trouble, besides loss of time. Shortly after emerging from the scrubs, we struck a small creek with one or two gum-trees on it; a native well was in the bed, and we managed to get water enough for the horses, we having only travelled six miles straight all day. This was a very good, if not actually a pretty, encampment; there was a narrow strip of open ground along the banks, and good vegetation for the horses. We slept upon the sandy bed of the creek to escape the terrible quantities of burrs which grew all over these wilds.

We steered away nearly west for the highest hills we had seen yesterday; there appeared a fall or gap between two; the scrubs were very thick to-day, as was seen by the state of our pack-bags, an infallible test, when we stopped for the night, during the greater part of which we had to repair the bags. We could not find any water, and we seemed to be getting into very desolate places. A densely scrubby and stony gully was before us, which we had to get through or up, and on reaching the top I was disappointed to find that, though there was an open valley below, the hills all round seemed too much disconnected to form any good watering places. Descending, and leaving Gibson and Jimmy with the horses, Mr. Tietkens and I

rode in different directions in search of water. In about two hours we met, in the only likely spot either of us had seen; this was a little watercourse, and following it up to the foot of the hills found a most welcome and unexpectedly large pond for such a place. Above it in the rocks were a line of little basins which contained water, with a rather pronounced odour of stagnation about it; above them again the water was running, but there was a space between upon which no water was seen. We returned for the horses and camped as near as we could find a convenient spot; this, however, was nearly a mile from the water. The valley ran north-east and south-west; it was very narrow, not too open, and there was but poor grass and herbage, the greater portion of the vegetation being spinifex. At eight o'clock at night a thunderstorm came over us from the west, and sprinkled us with a few drops of rain; from west the storm travelled north-west, thence north to east and south, performing a perfect circle around; reaching its original starting point in about an hour, it disappeared, going northerly again. The rest of the night was beautifully calm and clear. Some of our horses required shoeing for the first time since we had left the telegraph line, now over 600 miles behind us. From the top of a hill here the western horizon was bounded by low scrubby ridges, with an odd one standing higher than the rest; to one of these I decided to go next. Some other hills lay a little more to the south, but there was nothing to choose between them; hills also ran along eastward and north-eastwards. At eight o'clock again to-night a thunderstorm came up

from the westward; it sprinkled us with a few drops of rain, and then became dispersed to the south and south-east.

The following day we passed in shoeing horses, mending pack-bags, re-stuffing pack-saddles, and general repairs. While out after the horses Mr. Tietkens found another place with some water, about two miles southerly on the opposite or west side of the valley. Finishing what work we had in hand, we remained here another day. I found that water boiled in this valley at 209°, making the approximate altitude of this country 1534 above sea level. This we always called the Shoeing Camp. We had remained there longer than at any other encampment since we started; we arrived on the 14th and left on the 18th October.

Getting over a low fall in the hills opposite the camp, I turned on my proper course for another hill and travelled fifteen miles; the first three being through very fine country, well grassed, having a good deal of salt bush, being lightly timbered, and free from spinifex. The scrub and triodia very soon made their appearance together, and we were forced to camp in a miserable place, there being neither grass nor water for the unfortunate horses.

The next morning we deviated from our course on seeing a bare-looking rocky hill to the right of our line of march; we reached it in ten miles. Searching about, I found several small holes or cups worn into the solid rock; and as they mostly contained water, the horses were unpacked, while a farther search was made. This hill was always after called the Cups. I rode away to other hills westward, and found a fresh-looking creek, which

emptied into a larger one; but I could find nothing but brine and bitter water. For the first time on this journey I found at this creek great quantities of that lovely flower, the desert pea, Clianthus Damperii. The creek ran south-westward. I searched for hours for water without success, and returned to the party at dusk. Mr. Tietkens had found some more water at another hill; and he and Gibson took some of the horses over to it, leaving Jimmy alone.

Jimmy walked over to one cup we had reserved for our own use, to fill the tin-billy for tea. Walking along with his eyes on the ground, and probably thinking of nothing at all, he reached the cup, and, to his horror and amazement, discovered some thirty or forty aboriginals seated or standing round the spot. As he came close up to, but without seeing them, they all yelled at him in chorus, eliciting from him a yell in return; then, letting fall the tin things he was carrying, he fairly ran back to the camp, when he proceeded to get all the guns and rifles in readiness to shoot the whole lot. But Mr. Tietkens and Gibson returning with the horses, having heard the yells, caused the natives to decamp, and relieved poor Jimmy's mind of its load of care and fear. No doubt these Autocthones were dreadfully annoyed to find their little reservoirs discovered by such water-swallowing wretches as they doubtless thought white men and horses to be; I could only console myself with the reflection, that in such a region as this we must be prepared to lay down our lives at any moment in our attempts to procure water, and we must take it when we find it at any price, as life and water are synonymous

terms. I dare say they know where to get more, but I don't. Some natives were prowling about our encampment all the first half of the night, and my little dog kept up an incessant barking; but the rest was silence.

We used every drop of water from every cup, and moved away for the bitter water I found yesterday. I thought to sweeten it by opening the place with a shovel, and baling a lot of the stagnant water out; but it was irreclaimable, and the horses could not drink it.

Mr. Tietkens returned after dark and reported he had found only one poor place, that might yield sufficient for one drink for all the horses; and we moved down three miles. It was then a mile up in a little gully that ran into our creek. Here we had to dig out a large tank, but the water drained in so slowly that only eight horses could be watered by midday; at about three o'clock eight more were taken, and it was night before they were satisfied; and now the first eight came up again for more, and all the poor wretches were standing in and around the tank in the morning. The next day was spent in doling out a few quarts of water to each horse, while I spent the day in a fruitless search for the fluid which evidently did not exist. Six weeks or two months ago there must have been plenty of water here, but now it was gone; and had I been here at that time, I have no doubt I might have passed across to the Murchison; but now I must retreat to the Shoeing Camp. When I got back at night, I found that not half the horses had received even their miserable allowance of three quarts each, and the horse I had ridden far and fast

all day could get none: this was poor little W. A. of my first expedition. One little wretched cob horse was upon the last verge of existence; he was evidently not well, and had been falling away to a shadow for some time; he was for ever hiding himself in the scrubs, and caused as much trouble to look after him as all the others put together. He was nearly dead; water was of no use to him, and his hide might be useful in repairing some pack-bags, and we might save our stores for a time by eating him; so he was despatched from this scene of woe, but not without woeful cruelty; for Jimmy volunteered to shoot him, and walked down the creek a few yards to where the poor little creature stood. The possibility of any one not putting a bullet into the creature's forehead at once, never occurred to me; but immediately after we heard the shot, Jimmy came sauntering up and said, "Oh! he wants another dose." I jumped up and said, "Oh, you young——" No, I won't say what I told Jimmy. Then Gibson offered to do it, and with a very similar result. With suaviter in modo, sed fortiter in re, I informed him that I did not consider him a sufficiently crack shot to enable him to win a Wimbledon shield; and what the deuce did he—but there, I had to shoot the poor miserable creature, who already had two rifle bullets in his carcass, and I am sure with his last breath he thanked me for that quick relief. There was not sufficient flesh on his bones to cure; but we got a quantity of what there was, and because we fried it we called it steak, and because we called it steak we said we enjoyed it, though it was utterly tasteless. The hide was quite rotten and useless, being as thin and flimsy as

brown paper. It was impossible now to push farther out west, and a retreat to the Shoeing Camp had to be made, though we could not reach it in a day. Thermometer while on this creek 99°, and 100° in shade. This place was always called the Cob.

We had great difficulty in driving the horses past the Cups, as the poor creatures having got water there once, supposed it always existed there. Some of these little indents held only a few pints of water, others a few quarts, and the largest only a few gallons. Early the second day we got back, but we had left so little water behind us, that we found it nearly all gone. Six days having elapsed makes a wonderful difference in water that is already inclined to depart with such evaporation as is always going on in this region. We now went to where Mr. Tietkens had found another place, and he and Gibson took the shovel to open it out, while Jimmy and I unpacked the horses. Here Jimmy Andrews set fire to the spinifex close to all our packs and saddles, and a strong hot wind blowing, soon placed all our belongings in the most terrible jeopardy. The grass was dry and thick, and the fire raged around us in a terrific manner; guns and rifles, riding- and pack-saddles were surrounded by flames in a moment. We ran and halloed and turned back, and frantically threw anything we could catch hold of on to the ground already burnt. Upsetting a couple of packs, we got the bags to dash out the flames, and it was only by the most desperate exertions we saved nearly everything. The instant a thing was lifted, the grass under it seemed to catch fire spontaneously; I was on fire, Jimmy was

on fire, my brains were in a fiery, whirling blaze; and what with the heat, dust, smoke, ashes, and wind, I thought I must be suddenly translated to Pandemonium. Our appearance also was most satanic, for we were both as black as demons.

There was no shade; we hadn't a drop of water; and without speaking a word, off we went up the gully to try and get a drink; there was only just enough thick fluid for us, the horses standing disconsolately round. The day was hot, the thermometer marked 105°. There was not sufficient water here for the horses, and I decided, as we had not actually dug at our old camp, to return there and do so. This we did, and obtained a sufficiency at last. We were enabled to keep the camp here for a few days, while Mr. Tietkens and I tried to find a more northerly route to the west. Leaving Gibson and Jimmy behind, we took three horses and steered away for the north. Our route on this trip led us into the most miserable country, dry ridges and spinifex, sandhills and scrubs, which rolled along in undulations of several miles apart. We could get no water, and camped after a day's journey of forty miles.

Though the day had been very hot, the night became suddenly cool. In the morning of the 28th of October, at five miles we arrived at a scrubby sand ridge, and obtained a most displeasing view of the country further north. The surface seemed more depressed, but entirely filled up with dense scrubs, with another ridge similar to the one we were on bounding the view; we reached it in about eight miles. The view we then got was precisely similar to that behind us, except that

the next undulation that bounded the horizon was fifteen to eighteen miles away. We had now come fifty-one miles from the Shoeing Camp; there was no probability of getting water in such a region. To the west the horizon was bounded by what appeared a perfectly flat and level line running northwards. This flat line to the west seemed not more than twenty-five to thirty miles away; between us and it were a few low stony hills. Not liking the northern, I now decided to push over to the western horizon, which looked so flat. I have said there were some stony hills in that direction; we reached the first in twenty miles. The next was formed of nearly bare rock, where there were some old native gunyahs. Searching about we found another of those extraordinary basins, holes, or cups washed out of the solid rock by ancient ocean's force, ages before an all-seeing Providence placed His dusky children upon this scene, or even before the waters had sufficiently subsided to permit either animal or man to exist here. From this singular cup we obtained a sufficient supply of that fluid so terribly scarce in this region. We had to fill a canvas bucket with a pint pot to water our horses, and we outspanned for the remainder of the day at this exceedingly welcome spot. There were a few hundred acres of excellent grass land, and the horses did remarkably well during the night. The day had been very hot; the thermometer in the shade at this rock stood at 106°.

This proved a most abominable camp; it swarmed with ants, and they kept biting us so continually, that we were in a state of perpetual motion nearly all the time we were there. A few heat-drops of rain

fell. I was not sorry to leave the wretched place, which we left as dry as the surrounding void. We continued our west course over sandhills and through scrub and spinifex. The low ridges of which the western horizon was formed, and which had formerly looked perfectly flat, was reached in five miles; no other view could be got. A mile off was a slightly higher point, to which we went; then the horizon, both north and west of the same nature, ran on as far as could be seen, without any other object upon which to rest the eye. There were a few little gullies about, which we wasted an hour amongst in a fruitless search for water. The Bitter Water Creek now lay south of us; I was not at all satisfied at our retreat from it. I was anxious to find out where it went, for though we had spent several days in its neighbourhood, we had not travelled more than eight or ten miles down it; we might still get a bucket or two of water for our three horses where I had killed the little cob. We therefore turned south in hopes that we might get some satisfaction out of that region at last. We were now, however, thirty-nine or forty miles from the water-place, and two more from the Cob. I was most anxious on account of the water at the Shoeing Camp; it might have become quite exhausted by this time, and where on earth would Gibson and Jimmy go? The thermometer again to-day stood at 106° in the shade.

It was late at night when we reached the Cob tank, and all the water that had accumulated since we left was scarcely a bucketful.

Though the sky was quite overcast, and rain threatened to fall nearly all night, yet none

whatever came. The three horses were huddled up round the perfectly empty tank, having probably stood there all night. I determined to try down the creek. One or two small branches enlarged the channel, and in six or seven miles we saw an old native well, which we scratched out with our hands; but it was perfectly dry. At twelve miles another creek joined from some hills easterly, and immediately below the junction the bed was filled with green rushes. The shovel was at the Shoeing Camp, the bed was too stony to be dug into with our hands. Below this again another and larger creek joined from the east, or rather our creek ran into it. There were some large holes in the new bed, but all were dry. We now followed up this new channel eastwards, as our horses were very bad, and this was in the direction of the home camp. We searched everywhere, up in hills and gullies, and down into the creek again, but all without success, and we had a waterless camp once more. The horses were now terribly bad, they have had only the third of a bucket of water since Wednesday, it being now Friday morning. We had still thirty miles to go to reach the camp, and it was late when the poor unfortunate creatures dragged themselves into it. Fortunately the day had been remarkably cool, almost cold, the thermometer only rose to 80° in the shade. The water had held out well, and it still drained into the tank.

On the following morning, the 1st November, the thermometer actually descended to 32°, though of course there was neither frost nor ice, because there was nothing fluid or moist to freeze. I do

not remember ever feeling such a sensation of intense cold. The day was delightfully cool; I was most anxious to find out if any water could be got at the junction of the two creeks just left. Mr. Tietkens and Gibson took three fresh horses, and the shovel, on Monday, the 3rd of November, and started out there again.

Remaining at the camp was simple agony, the ants were so numerous and annoying; a strong wind was blowing from the eastwards, and the camp was in a continual cloud of sand and dust.

The next day was again windy and dusty, but not quite so hot as yesterday. Jimmy and I and the two dogs were at the camp. He had a habit of biting the dogs' noses, and it was only when they squealed that I saw what he was doing; to-day Cocky was the victim. I said, "What the deuce do you want to be biting the dog's nose for, you might seriously injure his nasal organ?" "Horgin," said Jimmy, "do you call his nose a horgin?" I said, "Yes, any part of the body of man or animal is called an organ." "Well," he said, "I never knew that dogs carried horgins about with them before." I said, "Well, they do, and don't you go biting any of them again." Jimmy of course, my reader can see, was a queer young fellow. On one occasion further back, a good many crows were about, and they became the subject of discussion. I remarked, "I've travelled about in the bush as much as most people, and I never yet saw a little crow that couldn't fly;" then Jimmy said, "Why, when we was at the Birthday, didn't I bring a little crow hin a hague hin?" I said, "What's hin a hague hin?" To which he replied, "I didn't say

"*hin a hague hin*," I says "*Hand her hague hin.*" After this, whenever we went hunting for water, and found it, if there was a sufficient quantity for us we always said, "Oh, there's enough to boil a hague in anyhow." Late in the evening of the next day, Jimmy and I were watching at the tank for pigeons, when the three horses Mr. Tietkens took away came up to drink; this of course informed me they had returned. The horses looked fearfully hollow, and I could see at a glance that they could not possibly have had any water since they left. Mr. Tietkens reported that no water was to be got anywhere, and the country to the west appeared entirely waterless.

I was, however, determined to make one more attempt. Packing two horses with water, I intended to carry it out to the creek, which is forty miles from here. At that point I would water one horse, hang the remainder of the water in a tree, and follow the creek channel to see what became of it. I took Gibson and Jimmy, Mr. Tietkens remaining at the camp. On arriving at the junction of the larger creek, we followed down the channel and in five miles, to my great surprise, though the traveller in these regions should be surprised at nothing, we completely ran the creek out, as it simply ended among triodia, sandhills, and scrubby mulga flats. I was greatly disappointed at this turn of affairs, as I had thought from its size it would at least have led me to some water, and to the discovery of some new geographical features. Except where we struck it, the country had all been burnt, and we had to return to that spot to get grass to camp at. Water existed only in the bags

which we carried with us. I gave the horse I intend riding to-morrow a couple of buckets of water. I suppose he would have drank a dozen—the others got none. The three of us encamped together here.

CHAPTER V.

FROM 9TH NOVEMBER TO 23RD DECEMBER, 1873.

Alone—Native signs—A stinking pit—Ninety miles from water—Elder's Creek—Hughes's Creek—The Colonel's range—Rampart-like range—Hills to the north-east—Jamieson's range—Return to Fort Mueller—Rain—Start for the Shoeing Camp once more—Lightning Rock—Nothing like leather—Pharaoh's inflictions—Photophobists—Hot weather—Fever and philosophy—Tietkens's tank—Gibson taken ill—Mysterious disappearance of water—Earthquake shock—Concussions and falling rocks—The glen—Cut an approach to the water—Another earthquake shock—A bough-house—Gardens—A journey northwards—Pine-clad hills—New line of ranges—Return to depot.

THE following day was Sunday, the 9th of November, but was not a day of rest to any of us. Gibson and Jimmy started back with the pack-horses for the Shoeing Camp, while I intended going westward, westward, and alone! I gave my horse another drink, and fixed a water-bag, containing about eight gallons, in a leather envelope up in a tree; and started away like errant knight on sad adventure bound, though unattended by any esquire or shield-bearer. I rode away west, over open triodia sandhills, with occasional dots of scrub between, for twenty miles. The horizon to the west was bounded by open, undulating rises of no elevation, but whether of sand or stone I could not determine. At this distance from the creek the

sandhills mainly fell off, and the country was composed of ground thickly clothed with spinifex and covered all over with brown gravel. I gave my horse an hour's rest here, with the thermometer at 102° in the shade. There was no grass, and not being possessed of organs that could digest triodia he simply rested. On starting again, the hills I had left now almost entirely disappeared, and looked flattened out to a long low line. I travelled over many miles of burnt, stony, brown, gravelly undulations; at every four or five miles I obtained a view of similar country beyond; at thirty-five miles from the creek the country all round me was exactly alike, but here, on passing a rise that seemed a little more solid than the others, I noticed in a kind of little valley some signs of recent native encampments; and the feathers of birds strewn about—there were hawks', pigeons', and cockatoos' feathers. I rode towards them, and right under my horse's feet I saw a most singular hole in the ground. Dismounting, I found it was another of those extraordinary cups from whence the natives obtain water. This one was entirely filled up with boughs, and I had great difficulty in dragging them out, when I perceived that this orifice was of some depth and contained some water; but on reaching up a drop, with the greatest difficulty, in my hand, I found it was quite putrid; indeed, while taking out the boughs my nasal horgin, as Jimmy would call it, gave me the same information.

I found the hole was choked up with rotten leaves, dead animals, birds, and all imaginable sorts of filth. On poking a stick down into it, seething

bubbles aerated through the putrid mass, and yet the natives had evidently been living upon this fluid for some time; some of the fires in their camp were yet alight. I had very great difficulty in reaching down to bale any of this fluid into my canvas bucket. My horse seemed anxious to drink, but one bucketful was all he could manage. There was not more than five or six buckets of water in this hole; it made me quite sick to get the bucketful for the horse. There were a few hundred acres of silver grass in the little valley near, and as my horse began to feed with an apparent relish, I remained here, though I anticipated at any moment seeing a number of natives make their appearance. I said to myself, "Come one, come all, this rock shall fly from its firm base as soon as I." No enemies came, and I passed the night with my horse feeding quietly close to where I lay. To this I attributed my safety.

Long before sunrise I was away from this dismal place, not giving my horse any more of the disgusting water. In a mile or two I came to the top of one of those undulations which at various distances bound the horizon. They are but swells a little higher than the rest of the country. How far this formation would extend was the question, and what other feature that lay beyond, at which water could be obtained, was a difficult problem to solve. From its appearance I was compelled to suppose that it would remain unaltered for a very considerable distance. From this rise all I could see was another; this I reached in nine miles. Nearly all the country hereabout had been burnt, but not very recently. The ground was still covered with

gravel, with here and there small patches of scrub, the country in general being very good for travelling. I felt sure it would be necessary to travel 150 miles at least before a watered spot could be found. How ardently I wished for a camel; for what is a horse where waters do not exist except at great distances apart? I pushed on to the next rising ground, ten miles, being nearly twenty from where I had camped. The view from here was precisely similar to the former ones. My horse had not travelled well this morning, he seemed to possess but little pluck. Although he was fat yesterday, he is literally poor now. This horse's name was Pratt; he was a poor weak creature, and died subsequently from thirst. I am afraid the putrid water has made him ill, for I have had great difficulty in getting him to go. I turned him out here for an hour at eleven o'clock, when the thermometer indicated 102° in the shade. The horse simply stood in the shade of a small belt of mulga, but he would not try to eat. To the south about a mile there was apparently a more solid rise, and I walked over to it, but there was no cup either to cheer or inebriate. I was now over fifty miles from my water-bag, which was hanging in a tree at the mercy of the winds and waves, not to mention its removal by natives, and if I lost that I should probably lose my life as well. I was now ninety miles from the Shoeing Camp, and unless I was prepared to go on for another hundred miles; ten, fifteen, twenty, or fifty would be of little or no use. It was as much as my horse would do to get back alive. From this point I returned. The animal went so slowly that it was dusk when I got back to the Cup, where I observed, by the

removal of several boughs, that natives had been here in my absence. They had put a lot of boughs back into the hole again. I had no doubt they were close to me now, and felt sure they were watching me and my movements with lynx-like glances from their dark metallic eyes. I looked upon my miserable wretch of a horse as a safeguard from them. He would not eat, but immediately hobbled off to the pit, and I was afraid he

THE STINKING PIT.

would jump in before I could stop him, he was so eager for drink. It was an exceedingly difficult operation to get water out of this abominable hole, as the bucket could not be dipped into it, nor could I reach the frightful fluid at all without hanging my head down, with my legs stretched across the mouth of it, while I baled the fœtid mixture into the

bucket with one of my boots, as I had no other utensil. What with the position I was in and the horrible odour which rose from the seething fluid, I was seized with violent retching. The horse gulped down the first half of the bucket with avidity, but after that he would only sip at it, and I was glad enough to find that the one bucketful I had baled out of the pit was sufficient. I don't think any consideration would have induced me to bale out another.

Having had but little sleep, I rode away at three o'clock next morning. The horse looked wretched and went worse. It was past midday when I had gone twenty miles, when, entering sandhill country, I was afraid he would knock up altogether. After an hour and a half's rest he seemed better; he walked away almost briskly, and we reached the water-bag much earlier than I expected. Here we both had a good drink, although he would have emptied the bag three times over if he could have got it. The day had been hot.

When I left this singular watercourse, where plenty of water existed in its upper portions, but was either too bitter or too salt for use, I named it Elder's Creek. The other that joins it I called Hughes's Creek, and the range in which they exist the Colonel's Range.

There was not much water left for the horse. He was standing close to the bag for some hours before daylight. He drank it up and away we went, having forty miles to go. I arrived very late. Everything was well except the water supply, and that was gradually ceasing. In a week there will be none. The day had been pleasant and cool.

Several more days were spent here, re-digging and enlarging the old tank and trying to find a new. Gibson and I went to some hills to the south, with a rampart-like face. The place swarmed with pigeons, but we could find no water. We could hear the birds crooning and cooing in all directions as we rode, "like the moan of doves in immemorial elms, and the murmurings of innumerable bees." This rampart-like ridge was festooned with cypress pines, and had there been water there, I should have thought it a very pretty place. Every day was telling upon the water at the camp. We had to return unsuccessful, having found none. The horses were loose, and rambled about in several mobs and all directions, and at night we could not get them all together. The water was now so low that, growl as we may, go we must. It was five P.M. on the 17th of November when we left. The nearest water now to us that I knew of was at Fort Mueller, but I decided to return to it by a different route from that we had arrived on, and as some hills lay north-easterly, and some were pretty high, we went away in that direction.

We travelled through the usual poor country, and crossed several dry water-channels. In one I thought to get a drink for the horses. The party having gone on, I overtook them and sent Gibson back with the shovel. We brought the horses back to the place, but he gave a very gloomy opinion of it. The supply was so poor that, after working and watching the horses all night, they could only get a bucketful each by morning, and I was much vexed at having wasted time and energy in such a wretched spot, which we left in huge

disgust, and continued on our course. Very poor regions were traversed, every likely-looking spot was searched for water. I had been steering for a big hill from the Shoeing Camp; a dry creek issued from its slopes. Here the hills ceased in this northerly direction, only to the east and south-east could ranges be seen, and it is only in them that water can be expected in this region. Fort Mueller was nearly fifty miles away, on a bearing of 30° south of east. We now turned towards it. A detached, jagged, and inviting-looking range lay a little to the east of north-east; it appeared similar to the Fort Mueller hills. I called it Jamieson's* Range, but did not visit it. Half the day was lost in useless searching for water, and we encamped without any; thermometer 104° at ten A.M. At night we camped on an open piece of spinifex country. We had thunder and lightning, and about six heat-drops of rain fell.

The next day we proceeded on our course for Fort Mueller; at twelve miles we had a shower of rain, with thunder and lightning, that lasted a few seconds only. We were at a bare rock, and had the rain lasted with the same force for only a minute, we could have given our horses a drink upon the spot, but as it was we got none. The horses ran all about licking the rock with their parched tongues.

Late at night we reached our old encampment, where we had got water in the sandy bed of the creek. It was now no longer here, and we had to go further up. I went on ahead to look for a spot, and returning, met the horses in hobbles going up the creek, some right in the bed. I intended to

have dug a tank for them, but the others let them go too soon. I consoled myself by thinking that they had only to go far enough, and they would get water on the surface. With the exception of the one bucket each, this was their fourth night without water. The sky was now as black as pitch; it thundered and lightened, and there was every appearance of a fall of rain, but only a light mist or heavy dew fell for an hour or two; it was so light and the temperature so hot that we all lay without a rag on till morning.

At earliest dawn Mr. Tietkens and I took the shovel and walked to where we heard the horse-bells. Twelve of the poor animals were lying in the bed of the creek, with limbs stretched out as if dead, but we were truly glad to find they were still alive, though some of them could not get up. Some that were standing up were working away with their hobbled feet the best way they could, stamping out the sand trying to dig out little tanks, and one old stager had actually reached the water in his tank, so we drove him away and dug out a proper place. We got all the horses watered by nine o'clock. It was four A.M. when we began to dig, and our exercise gave us an excellent appetite for our breakfast. Gibson built a small bough gunyah, under which we sat, with the thermometer at 102°.

In the afternoon the sky became overcast, and at six P.M. rain actually began to fall heavily, but only for a quarter of an hour, though it continued to drip for two or three hours. During and after that we had heavy thunder and most vivid lightnings. The thermometer at nine fell to 48°; in the sun to-day it had been 176°, the difference being 128° in a few

hours, and we thought we should be frozen stiff where we stood. A slight trickle of surface water came down the creek channel. The rain seemed to have come from the west, and I resolved to push out there again and see. This was Friday; a day's rest was actually required by the horses, and the following day being Sunday, we yet remained.

Monday, 24th November. — We had thunder, lightnings, and sprinklings of rain again during last night. We made another departure for the Shoeing Camp and Elder's Creek. At the bare rock previously mentioned, which was sixteen miles en route 30° north of west, we found the rain had left sufficient water for us, and we camped. The native well was full, and water also lay upon the rock. The place now seemed exceedingly pretty, totally different from its original appearance, when we could get no water at it. How wonderful is the difference the all-important element creates! While we were here another thunderstorm came up from the west and refilled all the basins, which the horses had considerably reduced. I called this the Lightning Rock, as on both our visits the lightning played so vividly around us. Just as we were starting, more thunder and lightnings and five minutes' rain came.

From here I steered to the one-bucket tank, and at one place actually saw water lying upon the ground, which was a most extraordinary circumstance. I was in great hopes the country to the west had been well visited by the rains. The country to-day was all dense scrubs, in which we saw a Mus conditor's nest. When in these scrubs I always ride in advance with a horse's bell fixed on my stirrup, so that those behind, although they cannot

see, may yet hear which way to come. Continually working this bell has almost deprived me of the faculty of hearing; the constant passage of the horses through these direful scrubs has worn out more canvas bags than ever entered into my calculations. Every night after travelling, some, if not all the bags, are sure to be ripped, causing the frequent loss of flour and various small articles that get jerked out. This has gone on to such an extent that every ounce of twine has been used up; the only supply we can now get is by unravelling some canvas. Ourselves and our clothes, as well as our pack-bags, get continually torn also. Any one in future traversing these regions must be equipped entirely in leather; there must be leather shirts and leather trousers, leather hats, leather heads, and leather hearts, for nothing else can stand in a region such as this.

We continued on our course for the one-bucket place; but searching some others of better appearance, I was surprised to find that not a drop of rain had fallen, and I began to feel alarmed that the Shoeing Camp should also have been unvisited. One of the horses was unwell, and concealed himself in the scrubs; some time was lost in recovering him. As it was dark and too late to go on farther, we had to encamp without water, nor was there any grass.

The following day we arrived at the old camp, at which there had been some little rain. The horses were choking, and rushed up the gully like mad; we had to drive them into a little yard we had made when here previously, as a whole lot of them treading into the tank at once might ruin it for

ever. The horse that hid himself yesterday knocked up to-day, and Gibson remained to bring him on; he came four hours after us, though we only left him three miles away. There was not sufficient water in the tank for all the horses; I was greatly grieved to find that so little could be got.

The camp ground had now become simply a moving mass of ants; they were bad enough when we left, but now they were frightful; they swarmed over everything, and bit us to the verge of madness. It is eleven days since we left this place, and now having returned, it seems highly probable that I shall soon be compelled to retreat again. Last night the ants were unbearable to Mr. Tietkens and myself, but Gibson and Jimmy do not appear to lose any sleep on their account. With the aid of a quart pot and a tin dish I managed to get some sort of a bath; but this is a luxury the traveller in these regions must in a great measure learn to do without. My garments and person were so perfumed with smashed ants, that I could almost believe I had been bathing in a vinegar cask. It was useless to start away from here with all the horses, without knowing how, or if any, rains had fallen out west. I therefore despatched Mr. Tietkens and Jimmy to take a tour round to all our former places. At twenty-five miles was the almost bare rocky hill which I called par excellence the Cups, from the number of those little stone indentures upon its surface, which I first saw on the 19th of October, this being the 29th of November. If no water was there, I directed Mr. Tietkens then only to visit Elder's Creek and return; for if there was none at the

Cups, there would be but little likelihood of any in other places.

Gibson and I had a most miserable day at the camp. The ants were dreadful; the hot winds blew clouds of sandy dust all through and over the place; the thermometer was at 102°. We repaired several pack-bags. A few mosquitoes for variety paid us persistent attentions during the early part of the night; but their stings and bites were delightful pleasures compared to the agonies inflicted on us by the myriads of small black ants. Another hot wind and sand-dust day; still sewing and repairing pack-bags to get them into something like order and usefulness.

At one P.M. Mr. Tietkens returned from the west, and reported that the whole country in that direction had been entirely unvisited by rains, with the exception of the Cups, and there, out of several dozen rocky indents, barely sufficient water for their three horses could be got. Elder's Creek, the Cob tank, the Colonel's Range, Hughes's Creek, and all the ranges lying between here and there, the way they returned, were perfectly dry, not a drop of moisture having fallen in all that region. Will it evermore be thus? Jupiter impluvius? Thermometer to-day 106° in shade. The water supply is so rapidly decreasing that in two days it will be gone. This is certainly not a delightful position to hold, indeed it is one of the most horrible of imaginable encampments. The small water supply is distant about a mile from the camp, and we have to carry it down in kegs on a horse, and often when we go for it, we find the horses have just emptied and dirtied the tank. We are eaten alive by flies,

ants, and mosquitoes, and our existence here cannot be deemed a happy one. Whatever could have obfuscated the brains of Moses, when he omitted to inflict Pharaoh with such exquiste torturers as ants, I cannot imagine. In a fiery region like to this I am photophobist enough to think I could wallow at ease, in blissful repose, in darkness, amongst cool and watery frogs; but ants, oh ants, are frightful! Like Othello, I am perplexed in the extreme—rain threatens every day, I don't like to go and I can't stay. Over some hills Mr. Tietkens and I found an old rocky native well, and worked for hours with shovel and levers, to shift great boulders of rock, and on the 4th of December we finally left the deceitful Shoeing Camp—never, I hope, to return. The new place was no better; it was two and a half miles away, in a wretched, scrubby, rocky, dry hole, and by moving some monstrous rocks, which left holes where they formerly rested, some water drained in, so that by night the horses were all satisfied. There was a hot, tropical, sultry feeling in the atmosphere all day, though it was not actually so hot as most days lately; some terrific lightnings occurred here on the night of the 5th of December, but we heard no thunder. On the 6th and 7th Mr. Tietkens and I tried several places to the eastwards for water, but without success. At three P.M. of the 7th, we had thunder and lightning, but no rain; thermometer 106°. On returning to camp, we were told that the water was rapidly failing, it becoming fine by degrees and beautifully less. At night the heavens were illuminated for hours by the most wonderful lightnings; it was, I suppose, too distant to permit the sound of thunder to be heard. On

the 8th we made sure that rain would fall, the night and morning were very hot. We had clouds, thunder, lightning, thermometer 112°, and every mortal disagreeable thing we wanted; so how could we expect rain? but here, thanks to Moses, or Pharaoh, or Providence, or the rocks, we were not troubled with ants. The next day we cleared out; the water was gone, so we went also. The thermometer was 110° in the shade when we finally left these miserable hills. We steered away again for Fort Mueller, viâ the Lightning Rock, which was forty-five miles away. We traversed a country nearly all scrub, passing some hills and searching channels and gullies as we went. We only got over twenty-one miles by night; I had been very unwell for the last three or four days, and to-day I was almost too ill to sit on my horse; I had fever, pains all over, and a splitting headache. The country being all scrub, I was compelled as usual to ride with a bell on my stirrup. Jingle jangle all day long; what with heat, fever, and the pain I was in, and the din of that infernal bell, I really thought it no sin to wish myself out of this world, and into a better, cooler, and less noisy one, where not even—

> "To heavenly harps the angelic choir,
> Circling the throne of the eternal King;"

should—

> "With hallowed lips and holy fire,
> Rejoice their hymns of praise to sing;"

which revived in my mind vague opinions with regard to our notions of heaven. If only to sit for ever singing hymns before Jehovah's throne is to be the future occupation of our souls, it is doubtful if

the thought should be so pleasing, as the opinions of Plato and other philosophers, and which Addison has rendered to us thus—.

> "Eternity, thou pleasing, dreadful thought,
> Through what variety of untried being,
> Through what new scenes and changes must we pass
> The wide, the unbounded prospect lies before me," &c.

But I am trenching upon debatable ground, and have no desire to enter an argument upon the subject. It is doubtless better to believe the tenets taught us in our childhood, than to seek at mature age to unravel a mystery which it is self-evident the Great Creator never intended that man in this state of existence should become acquainted with. However, I'll say no more on such a subject, it is quite foreign to the matter of my travels, and does not ease my fever in any way—in fact it rather augments it.

The next morning, the 10th, I was worse, and it was agony to have to rise, let alone to ride. We reached the Lightning Rock at three P.M., when the thermometer indicated 110°. The water was all but gone from the native well, but a small quantity was obtained by digging. I was too ill to do anything. A number of native fig-trees were growing on this rock, and while Gibson was using the shovel, Mr. Tietkens went to get some for me, as he thought they might do me good. It was most fortunate that he went, for though he did not get any figs, he found a fine rock water-hole which we had not seen before, and where all the horses could drink their fill. I was never more delighted in my life. The thought of moving again to-morrow was

killing—indeed I had intended to remain, but this enabled us all to do so. It was as much as I could do to move even the mile, to where we shifted our camp; thermometer 108°. By the next day, 12th, the horses had considerably reduced the water, and by to-morrow it will be gone. This basin would be of some size were it cleaned out; we could not tell what depth it was, as it is now almost entirely filled with the débris of ages. Its shape is elliptical, and is thirty feet long by fifteen broad, its sides being even more abrupt than perpendicular—that is to say, shelving inwards—and the horses could only water by jumping down at one place. There was about three feet of water, the rest being all soil. To-day was much cooler. I called this Tietkens's Tank. On the 14th, the water was gone, the tank dry, and all the horses away to the east, and it was past three when they were brought back. Unfortunately, Gibson's little dog Toby followed him out to-day and never returned. After we started I sent Gibson back to await the poor pup's return, but at night Gibson came without Toby; I told him he could have any horses he liked to go back for him to-morrow, and I would have gone myself only I was still too ill. During the night Gibson was taken ill just as I had been; therefore poor Toby was never recovered. We have still one little dog of mine which I bought in Adelaide, of the same kind as Toby, that is to say, the small black-and-tan English terrier, though I regret to say he is decidedly not, of the breed of that Billy indeed, who used to kill rats for a bet; I forget how many one morning he ate, but you'll find it in sporting books yet. It was very late when we

reached our old bough gunyah camp; there was no water. I intended going up farther, but, being behind, Mr. Tietkens and Jimmy had began to unload, and some of the horses were hobbled out when I arrived; Gibson was still behind. For the second time I have been compelled to retreat to this range; shall I ever get away from it? When we left the rock, the thermometer indicated 110° in the shade.

Next morning I was a little better, but Gibson was very ill—indeed I thought he was going to die, and would he had died quietly there. Mr. Tietkens and I walked up the creek to look for the horses. We found and took about half of them to the surface water up in the narrow glen. When we arrived, there was plenty of water running merrily along the creek channel, and there were several nice ponds full, but when we brought the second lot to the place an hour and a half afterwards, the stream had ceased to flow, and the nice ponds just mentioned were all but empty and dry. This completely staggered me to find the drainage cease so suddenly. The day was very hot, 110°, when we returned to camp.

I was in a state of bewilderment at the thought of the water having so quickly disappeared, and I was wondering where I should have to retreat to next, as it appeared that in a day or two there would literally be no water at all. I felt ill again from my morning's walk, and lay down in the 110° of shade, afforded by the bough gunyah which Gibson had formerly made.

I had scarcely settled myself on my rug when a most pronounced shock of earthquake occurred,

the volcanic wave, which caused a sound like thunder, passing along from west to east right under us, shook the ground and the gunyah so violently as to make me jump up as though nothing was the matter with me. As the wave passed on, we heard up in the glen to the east of us great concussions, and the sounds of smashing and falling rocks hurled from their native eminences rumbling and crashing into the glen below. The atmosphere was very still to-day, and the sky clear except to the deceitful west.

Gibson is still so ill that we did not move the camp. I was in a great state of anxiety about the water supply, and Tietkens and I walked first after the horses, and then took them up to the glen, where I was enchanted to behold the stream again in full flow, and the sheets of surface water as large, and as fine as when we first saw them yesterday. I was puzzled at this singular circumstance, and concluded that the earthquake had shaken the foundations of the hills, and thus forced the water up; but from whatsoever cause it proceeded, I was exceedingly glad to see it. To-day was much cooler than yesterday. At three P.M., the same time of day, we had another shock of earthquake similar to that of yesterday, only that the volcanic wave passed along a little northerly of the camp, and the sounds of breaking and falling rocks came from over the hills to the north-east of us.

Gibson was better on the 17th, and we moved the camp up into the glen where the surface water existed. We pitched our encampment upon a small piece of rising ground, where there was a fine little pool of water in the creek bed, partly formed

of rocks, over which the purling streamlet fell, forming a most agreeable little basin for a bath.

The day was comparatively cool, 100°. The glen here is almost entirely choked up with tea-trees, and we had to cut great quantities of wood away so as to approach the water easily. The tea-tree is the only timber here for firewood; many trees are of some size, being seven or eight inches through, but mostly very crooked and gnarled. The green wood appears to burn almost as well as the dead, and forms good ash for baking dampers. Again to-day we had our usual shock of earthquake and at the usual time. Next day at three P.M., earthquake, quivering hills, broken and toppling rocks, with scared and agitated rock wallabies. This seemed a very ticklish, if not extremely dangerous place for a depot. Rocks overhung and frowned down upon us in every direction; a very few of these let loose by an earthquake would soon put a period to any further explorations on our part. We passed a great portion of to-day (18th) in erecting a fine large bough-house; they are so much cooler than tents. We also cleared several patches of rich brown soil, and made little Gardens (de Plantes), putting in all sorts of garden and other seeds. I have now discovered that towards afternoon, when the heat is greatest the flow of water ceases in the creek daily; but at night, during the morning hours and up to about midday, the little stream flows murmuring on over the stones and through the sand as merrily as one can wish. Fort Mueller cannot be said to be a pretty spot, for it is so confined by the frowning, battlemented, fortress-like walls of black and broken hills, that there is scarcely room to turn

round in it, and attacks by the natives are much to be dreaded here.

We have had to clear the ground round our fort of the stones and huge bunches of triodia which we found there. The slopes of the hills are also thickly clothed with this dreadful grass. The horses feed some three or four miles away on the fine open grassy country which, as I mentioned before, surrounds this range. The herbage being so excellent here, the horses got so fresh, we had to build a yard with the tea-tree timber to run them in when we wanted to catch any. I still hope rain will fall, and lodge at Elder's Creek, a hundred miles to the west, so as to enable me to push out westward again. Nearly every day the sky is overcast, and rain threatens to fall, especially towards the north, where a number of unconnected ridges or low ranges lie. Mr. Tietkens and I prepared to start northerly to-morrow, the 20th, to inspect them.

We got out in that direction about twenty miles, passed near a hill I named Mount Scott,* and found a small creek, but no water. The country appeared to have been totally unvisited by rains.

We carried some water in a keg for ourselves, but the horses got none. The country passed over to-day was mostly red sandhills, recently burnt, and on that account free from spinifex. We travelled about north, 40° east. We next steered away for a dark-looking, bluff-ending hill, nearly north-north-east. Before arriving at it we searched among a lot of pine-clad hills for water without effect, reaching the hill in twenty-two miles. Resting our horses, we ascended the hill; from it I discovered, with glasses, that to the north and round easterly

and westerly a number of ranges lay at a very considerable distance. The nearest, which lay north, was evidently sixty or seventy miles off. These ranges appeared to be of some length, but were not sufficiently raised above the ocean of scrubs, which occupied the intervening spaces, and rose into high and higher undulations, to allow me to form an opinion with regard to their altitude. Those east of north appeared higher and farther away, and were bolder and more pointed in outline. None of them were seen with the naked eye at first, but, when once seen with the field-glasses, the mind's eye would always represent them to us, floating and faintly waving apparently skywards in their vague and distant mirage. This discovery instantly created a burning desire in both of us to be off and reach them; but there were one or two preliminary determinations to be considered before starting. We are now nearly fifty miles from Fort Mueller, and the horses have been all one day, all one night, and half to-day without water. There might certainly be water at the new ranges, but then again there might not, and although they were at least sixty miles off, our horses might easily reach them. If, however, no water were found, they and perhaps we could never return. My reader must not confound a hundred miles' walk in this region with the same distance in any other. The greatest walker that ever stepped would find more than his match here. In the first place the feet sink in the loose and sandy soil, in the second it is densely covered with the hideous porcupine; to avoid the constant prickings from this the walker is compelled to raise his feet to an unnatural height; and another hideous

vegetation, which I call sage-bush, obstructs even more, although it does not pain so much as the irritans. Again, the ground being hot enough to burn the soles off one's boots, with the thermometer at something like 180° in the sun, and the choking from thirst at every movement of the body, is enough to make any one pause before he foolishly gets himself into such a predicament. Discretion in such a case is by far the better part of valour—for valour wasted upon burning sands to no purpose is like love's labour lost.

Close about in all directions, except north, were broken masses of hills, and we decided to search among them for a new point of departure. We re-saddled our horses, and searched those nearest, that is to say easterly; but no water was found, nor any place that could hold it for an hour after it fell from the sky. Then we went north-west, to a bare-looking hill, and others with pines ornamenting their tops; but after travelling and searching all day, and the horses doing forty-six miles, we had to camp again without water.

In the night the thermometer went down to 62°. I was so cold that I had to light a fire to lie down by. All this day was uselessly lost in various traverses and searchings without reward; and after travelling forty-two miles, the unfortunate horses had to go again for the third night without water. We were, however, nearing the depot again, and reached it, in sixteen miles, early the next morning. Thankful enough we were to have plenty of water to drink, a bath, and change of clothes.

CHAPTER VI.

FROM 23RD DECEMBER, 1873 TO 16TH JANUARY, 1874.

Primitive laundry—Natives troublesome in our absence—The ives—Gibson's estimate of a straight heel—Christmas day, 1873—Attacked by natives—A wild caroo—Wild grapes from a sandal-wood tree—More earthquakes—The moon on the waters—Another journey northwards—Retreat to the depot—More rain at the depot—Jimmy's escape—A "canis familiaris"—An innocent lamb—Sage-bush scrubs—Groves of oak-trees—Beautiful green flat—Crab-hole water—Bold and abrupt range—A glittering cascade—Invisibly bright water—The murmur in the shell—A shower bath—The Alice Falls—Ascend to the summit—A strange view—Gratified at our discoveries—Return to Fort Mueller—Digging with a tomahawk—Storing water—Wallaby for supper—Another attack—Gibson's gardens—Opossums destructive—Birds—Thoughts—Physical peculiarities of the region—Haunted—Depart.

THE way we wash our clothes is primitive—it can only be done at a depot. When we have sufficient water, we simply put them into it, and leave them until we want to change again, and then do the same with those we take off; sometimes they sweeten for several days, oftener much less. It is an inexpensive method, which, however, I suppose I must not claim as an invention. On the 23rd, when we arrived, Gibson informed us that the natives had been exceedingly troublesome, and had thrown several spears and stones down from the

rocks above, so that he and Jimmy had had to defend themselves with firearms. Our bough-house was a great protection to them, and it appeared also that these wretches had hunted all the horses away from their feeding ground, and they had not been seen for three days, and not having come up to water all the time we were away. At four P.M. we had our afternoon earthquake, and Gibson said the shock had occurred twice during our absence. The hostility of the natives was very annoying in more senses than one, as it would delay me in carrying out my desire to visit the new and distant ranges north. Christmas had been slightly anticipated by Gibson, who said he had made and cooked a Christmas pudding, and that it was now ready for the table. We therefore had it for dinner, and did ample justice to Gibson's cookery. They had also shot several rock-wallabies, which abound here. They are capital eating, especially when fried; then they have a great resemblance to mutton.

Gibson and Jimmy did not agree very well; Jimmy always had some tale of woe to pour into my ear whenever I returned from an outside trip. He was a very clean young fellow, but Gibson would never wash himself; and once when Jimmy made some remark about it, Gibson said to me, "I can't think what you and Tietkens and Jimmy are always washing yourselves for." "Why," I said, "for health and cleanliness, to be sure." "Oh," said he, "if I was to bathe like you do, it would give me the *ives*." I often showed the others how to mend their boots. One day, sitting in the shade of our bough-house, we were engaged in cobbling. Gibson used to tread so unevenly on his boots that

the heels were turned nearly upwards, and he walked more on the uppers than on the soles, therefore his required all the more repairing. Picking up one of my boots that I had just mended, Gibson looked very hard at it, and at last said, "How do you manage to wear your boots so straight?" "Oh," I said, "perhaps my legs are straight." He rejoined, "Well, ain't mine straight too?" I said, "I don't know; I don't see them often enough to tell," alluding to his not bathing. "Well," he said at last, with a deep sigh, "By G—"—gum, I suppose he meant—"I'd give a pound to be able to wear my boots as straight as you. No, I'm damned if I wouldn't give five-and-twenty bob!" We laughed. We had some rolls of smoked beef, which caused the ants to come about the camp, and we had to erect a little table with legs in the water, to lay these on. One roll had a slightly musty smell, and Gibson said to me, "This roll's rotten; shall I chuck it away?" "Chuck it away," I said; "why, man, you must be cranky to talk such rubbish as throwing away food in such a region as this!" "Why," said he, "nobody won't eat it." "No," said I, "but somebody will eat it; I for one, and enjoy it too." Whereupon he looked up at me, and said, "Oh, are you one of them as likes yer meat 'igh?" I was annoyed at his stupendous stupidity, and said, "One of them! Who are you talking about? Who are *they* I'd like to know? When we boil this meat, if we put a piece of charcoal in the pot, it will come out as sweet as a nut." He merely replied, with a dubious expression of face, "Oh!" but he ate his share of it as readily as

anybody else. The next day, Christmas eve, I sent Mr. Tietkens and Gibson on two of the horses we had lately brought back, to find the mob, which they brought home late, and said the tracks of the natives showed that they had driven the horses away for several miles, and they had found them near a small creek, along the south face of the range, where there was water. While they were away some ducks visited the camp, but the tea-tree was too thick to allow us to shoot any of them. The day was cool, although there is a great oppression in the atmosphere, and it is impossible to tell by one's feelings what might be the range of the thermometer, as I have often felt it hotter on some days with the thermometer at 96° or 98°, than when it ranged up to 108° or 110°. The afternoons are excessively relaxing, for although the mercury falls a little after three o'clock, still the morning's heat appears to remain until the sun has actually set. It is more than probable that the horses having been hunted by the natives, and having found more water, will not come back here of their own accord to water any more; so I shall keep one tied up at the camp, to fetch the others up with every morning.

And now comes Thursday, 25th December, Christmas Day, 1873. Ah, how the time flies! Years following years, steal something every day; at last they steal us from ourselves away. What Horace says is, Eheu fugaces, anni labuntur postume, postume :—Years glide away, and are lost to me, lost to me.

While Jimmy Andrews was away after the others, upon the horse that was tied up all night, we were

startled out of our propriety by the howls and yells of a pack of fiends in human form and aboriginal appearance, who had clambered up the rocks just above our camp. I could only see some ten or a dozen in the front, but scores more were dodging in and out among the rocks. The more prominent throng were led by an ancient individual, who, having fitted a spear, was just in the act of throwing it down amongst us, when Gibson seized a rifle, and presented him with a conical Christmas box, which smote the rocks with such force, and in such near proximity to his hinder parts, that in a great measure it checked his fiery ardour, and induced most of his more timorous following to climb with most perturbed activity over the rocks. The ancient more slowly followed, and then from behind the fastness of his rocky shield, he spoke spears and boomerangs to us, though he used none. He, however, poured out the vials of his wrath upon us, as he probably thought to some purpose. I was not linguist enough to be able to translate all he said; but I am sure my free interpretation of the gist of his remarks is correct, for he undoubtedly stigmatised us as a vile and useless set of lazy, crawling, white-faced wretches, who came sitting on hideous brutes of hippogryphs, being too lazy to walk like black men, and took upon ourselves the right to occupy any country or waters we might chance to find; that we killed and ate any wallabies and other game we happened to see, thereby depriving him and his friends of their natural, lawful food, and that our conduct had so incensed himself and his noble friends, who were now in the shelter of the rocks near him, that he begged us to take warning

that it was the unanimous determination of himself and his noble friends to destroy such vermin as he considered us, and our horses to be, and drive us from the face of the earth.

It appeared to me, however, that his harangue required punctuation, so I showed him the rifle again, whereupon he incontinently indulged in a full stop. The natives then retired from those rocks, and commenced their attack by throwing spears through the tea-tree from the opposite side of the creek. Here we had the back of our gunyah for a shield, and could poke the muzzles of our guns and rifles through the interstices of the boughs. We were compelled to discharge our pieces at them to ensure our peace and safety.

Our last discharge drove away the enemy, and soon after, Jimmy came with all the horses. Gibson shot a wallaby, and we had fried chops for our Christmas dinner. We drew from the medical department a bottle of rum to celebrate Christmas and victory. We had an excellent dinner (for explorers), although we had eaten our Christmas pudding two days before. We perhaps had no occasion to envy any one their Christmas dinner, although perhaps we did. Thermometer 106° in the shade. On this occasion Mr. Tietkens, who was almost a professional, sang us some songs in a fine, deep, clear voice, and Gibson sang two or three love songs, not altogether badly; then it was Jimmy's turn. He said he didn't know no love songs, but he would give us Tommy or Paddy Brennan. This gentleman appears to have started in business as a highwayman in the romantic mountains of Limerick. One verse that Jimmy

gave, and which pleased us most, because we couldn't quite understand it, was :—

"It was in sweet Limerick (er) citty
That he left his mother dear;
And in the Limerick (er) mountains,
He commenced his wild caroo-oo."

Upon our inquiring what a caroo was, Jimmy said he didn't know. No doubt it was something very desperate, and we considered we were perhaps upon a bit of a wild caroo ourselves.

The flies had now become a most terrible plague, especially to the horses, but most of all to the unfortunate that happens to be tied up. One horse, when he found he could not break away, threw himself down so often and so violently, and hurt himself so much, that I was compelled to let him go, unless I had allowed him to kill himself, which he would certainly have done.

A small grape-like fruit on a light green bush of the sandal-wood kind, having one soft stone, was got here. This fruit is black when ripe, and very good eating raw. We tried them cooked with sugar as jam, and though the others liked them very much, I could not touch them. The afternoons were most oppressive, and we had our usual earthquakes; one on the 28th causing a more than usual falling of rocks and smashing of tea-trees.

For a few days I was taking a rest. I was grieved to find that the water gradually ceased running earlier than formerly—that is to say, between eleven and twelve—the usual time had been between two and three P.M.; but by the morning every little basin was refilled. The phases of the moon have evidently something to do with the water

supply. As the moon waxes, the power of the current wanes, and vice versâ. On the 1st January, 1874, the moon was approaching its full, a quarter's change of the moon being the only time rain is likely to fall in this country; rain is threatening now every day. After a hot and sultry night, on the 2nd, at about two o'clock, a fine thunder-shower from the east came over the range, and though it did not last very long, it quite replenished the water supply in the creek, and set it running again after it had left off work for the day. This shower has quite reanimated my hopes, and Mr. Tietkens and I at once got three horses, and started off to reach the distant range, hoping now to find some water which would enable us to reach it. For ten miles from the camp the shower had extended; but beyond that distance no signs of it were visible anywhere. On the 4th we found a clay-pan, having a clay-hole at one end with some mud in it, and which the natives had but just left, but no water; then another, where, as thunderstorms were flying about in all directions, we dug out a clay tank. While at work our clothes were damped with a sprinkling, but not enough rain fell to leave any on the ground. It seemed evident I must pack out water from Fort Mueller, if ever I reached the new feature, as Nature evidently did not intend to assist, though it seemed monstrous to have to do so, while the sky was so densely overcast and black, and threatening thunderstorms coming up from all directions, and carrying away, right over our heads, thousands of cubic acres of water which must fall somewhere. I determined to wait a few days and see the upshot of all these threatenings. To the east it was undoubtedly raining, though to the west

the sky was beautifully clear. We returned to the native clay-pan, hoping rain might have fallen, but it was drier than when we left it. The next morning the clear sky showed that all the rains had departed. We deepened the native clay-hole, and then left for the depot, and found some water in a little hole about ten miles from it. We rested the horses while we dug a tank, and drained all the water into it; not having a pickaxe, we could not get down deep enough.

From here I intended to pack some water out north. While we were digging, another thunderstorm came up, sprinkling us with a few drops to show its contempt; it then split in halves, going respectively north and south, apparently each dropping rain on the country they passed over.

On reaching the camp, we were told that two nice showers had fallen, the stream now showing no signs of languishing all the day long. With his usual intelligence, Jimmy Andrews had pulled a double-barelled gun out from under a heap of pack-bags and other things by the barrel; of course, the hammer got caught and snapped down on the cartridge, firing the contents, but most fortunately missing his body by half an inch. Had it been otherwise, we should have found him buried, and Gibson a lunatic and alone. No natives had appeared while we were away; as I remembered what the old gentleman told me about keeping away, so I hoped he would do the same, on account of my parting remarks to him, which it seems he must have understood.

In the middle of the night my little dog Cocky rushed furiously out of the tent, and began to bark

at, and chase some animal round the camp; he eventually drove it right into the tent. In the obscured moonlight I supposed it was a native dog, but it was white, and looked exactly like a large fat lamb. It was, at all events, an innocent lamb to come near us, for as it sauntered away, I sent a revolver bullet after it, and it departed at much greater speed, squealing and howling until out of earshot.

On the 7th Mr. Tietkens and I again departed for the north. That night we got wet through; there was plenty of water, but none that would remain. Being sure that the native clay-hole would now be full, we passed it on our left, and at our outmost tank at nineteen miles were delighted to find that both it and the clay-pan near it were full. We called this the Emu Tank. We now went to the bare red hill with pines, previously mentioned, and found a trickling flow of water in a small gully. I hope it will trickle till I return. We are now fifty miles from Fort Mueller, and the distant ranges seemed even farther away than that.

Moving north, we went over a mass of open-rolling sandhills with triodia, and that other abominable plant I call the sage-bush. In appearance it is something like low tea-tree, but it differs entirely from that family, inasmuch as it utterly abhors water. Although it is not spiny like the triodia, it is almost as annoying, both to horse and man, as it grows too high for either to step over without stretching, and it is too strong to be easily moved aside; hence, horse-tracks in this region go zigzag.

At thirty-five miles the open sandhills ceased, and scrubs came on. It was a cool and cloudy day.

We passed through a few groves of the pretty desert oak-trees, which I have not seen for some time; a few native poplars and currajongs were also seen to-day. The horses wandered a long way back in the night.

After travelling fifteen miles, we were now rapidly approaching the range, and we debouched upon a eucalyptus flat, which was covered with a beautiful carpet of verdure, and not having met with gum-trees for some time, those we saw here, looked exceedingly fine, and the bark dazzling white. Here we found a clay crab-hole. These holes are so-called in parts of Australia, usually near the coasts, where freshwater crabs and crayfish bury themselves in the bottoms of places where rain water often lodges; the holes these creatures make are tubes of two, three, or four feet deep, whose sides and bottom are cemented, and which hold water like a glass bottle; in these tubes they remain till rain again lodges above, when for a time they are released. The crab-hole we found contained a little water, which our horses drank with great avidity. The range was now only six or seven miles off, and it stood up bold and abrupt, having steep and deep gorges here and there, in its southern front. It was timberless and whitish-looking, and I had no doubt of finding water at it. I was extremely annoyed to discover that my field-glasses, an excellent pair, had been ripped off my saddle in the scrubs, and I should now be disappointed in obtaining any distant view from the summit.

"They were lost to the view like the sweet morning's dew;
They had been, and were not, was all that I knew."

From the crab-hole, in seven miles we reached a gorge in the mountain side, travelling through scrub, over quartz, pebbly hills, and occasional gum flats, all trending west, probably forming a creek in that direction.

In the gorge facing us we could discover a glittering little thread of water pouring down in a cascade from the top of the mountain into the gorge below, and upon reaching it we found, to our great delight, that we were upon the stony bank of a beautiful and pellucid little stream, whose almost invisibly bright water was so clear that not till our horses splashed it up with their feet could we quite realise this treasure trove. It was but a poor place for the horses to graze, on account of the glen being so stony and confined, but there was no occasion for them to ramble far to get plenty of grass, or a shady place either. We had some dinner and a most agreeable rest,—

> "'Neath the gum-trees' shade reclining,
> Where the dark green foliage twining,
> Screened us from the fervid shining
> Of the noontide sun."

This spot was distant about ninety miles from Fort Mueller, in a straight line. The day was cool and breezy. After our dinner we walked up to the foot of the cascade, along the margin of the transparent stream, which meandered amongst great boulders of rock; at the foot we found the rocks rose almost perpendicularly from a charming little basin, into which the stream from above and the spray from below mingled with a most melodious sound, so pleasant to the ear at any time, but how much more

to our drought-accustomed senses; continually sounding like the murmur in the sea-shell, which, as the poets say, remembering its ancient and august abode, still murmurs as it murmured then. The water fell from a height of 150 feet; the descent was not quite unbroken. A delightful shower of spray fell for many yards outside the basin, inviting to a bath, which we exquisitely enjoyed; the basin was not more than six feet deep. I am quite delighted with this new feature. There were gorges to the right of us, gorges to the left of us, and there was a gorge all round us. I shall not stay now to explore them, but will enter upon the task con amore when I bring the whole party here. I called these the Alice Falls, after one of my sisters. It was impossible to ascend the mountain viâ the cascade, so we had to flank it to reach the top. The view from thence, though inspiriting, was still most strange. Ranges upon ranges, some far and some near, bounded the horizon at all points. There was a high, bold-looking mount or range to the north-west forty or fifty miles off. Up to a certain time we always called this the North-West Mountain, as it bore in that direction when first seen, until we discovered its proper name, when I christened it Mount Destruction. Other ranges intervened much nearer. The particular portion of the range we were now on, was 1000 feet above the surrounding level. I found the boiling-point of water on this summit was 206°, being the same as upon the summit of the Sentinel—that is to say, 3085 feet above the sea. The country intervening between this and the other ranges in view, appeared open and good travelling ground. The ranges

beyond this have a brownish tinge, and are all entirely different from those at Fort Mueller. The rock formation here is a white and pinkish conglomerate granite. All the ranges visible are entirely timberless, and are all more or less rounded and corrugated, some having conical summits, and some looking like enormous eggs standing up on end; this for the first view. We descended, caught our horses, and departed for Fort Mueller, much gratified at the discoveries already made at this new geographical feature. On the road back I recovered my glasses. The day was most deliciously cool, there was a sweet perfume in the air, the morning was like one of those, so enjoyable in the spring, in the far-off agricultural districts of the fertile portions of the southern and eastern Colonies. When we reached the red bare hill, fifty miles from home, we found the water had ceased to flow.

At our Emu Tank all the outside surface water was gone, the tank only holding some. Our three horses greatly reduced its volume, and, fearing it would all evaporate before we could return, we cut a quantity of bushes and sticks to protect it from the sun. Remounting, we now made for the native clay-hole that we had avoided in going out. The outside water was now all but gone, but the hole still contained some, though not sufficient for all the horses; we set to work and chopped out another hole with a tomahawk, and drained all the thick water off the clay-pan into it. Then we cut boughs, bushes, and sticks to cover them, and proceeded homewards. On reaching the ten-mile or kangaroo tank, we found to our disgust that the

water was nearly all gone, and our original tank not large enough, so we chopped out another and drained all the surplus water into it. Then the boughs and bushes and sticks for a roof must be got, and by the time this was finished we were pretty well sick of tank making. Our hands were blistered, our arms were stiff, and our whole bodies bathed in streams of perspiration, though it was a comparatively cool day. We reached home very late on the 13th, having left the range on the 10th. I was glad to hear that the natives had not troubled the camp in my absence. Another circumstance gratified us also, and that was, Gibson had shot a large wallaby; we had not tasted meat since we left on the 7th.

To-day, 14th, we were getting all our packs and things ready for a start into the new and northern regions, when at eleven A.M. Mr. Tietkens gave the alarm that all the rocks overhead were lined with natives, who began to utter the most direful yells so soon as they found themselves discovered. Their numbers were much larger than before, and they were in communication with others in the tea-tree on the opposite side of the creek, whose loud and inharmonious cries made even the heavens to echo with their sounds. They began operations by poising their spears and waving us away. We waited for some little time, watching their movements, with our rifles in our hands. A flight of spears came crashing through the flimsy sides of our house, the roof and west gable being the only parts thickly covered, and they could see us jumping about inside to avoid their spears. Then a flight of spears came from the concealed

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enemy in the tea-tree. Mr. Tietkens and I rushed out, and fired right into the middle of the crowd. From the rocks behind which they hid, they sent another flight of spears; how we escaped them I can't imagine. In the meantime Gibson and Jimmy were firing through the boughs, and I decided that it was for us to take the aggressive. We rushed up the rocks after the enemy, when they seemed to drop like caterpillars, as instantaneously, they were all down underneath us right at the camp. I was afraid they would set fire to it; we however finally drove them from our stronghold, inducing them to decamp more or less the worse, and leave behind them a considerable quantity of military stores, in the shape of spears, wommerahs, waddies, wallabies' skins, owls, fly-flappers, red ochre, and numerous other minor valuables. These we brought in triumph to the camp. It always distressed me to have to fire at these savages, and it was only when our lives were in most imminent danger that we did so, for, as Iago says, though in the trade of war I have slain men, yet do I hold it very stuff o' the conscience to do no contrived murder. I lack iniquity, sometimes, to do me service. We then went on with our work, though expecting our foes to return, but we were not again molested, as they now probably thought we were vipers that would not stand too much crowding.

Three horses were missing, therefore we could not leave that day, and when they were found on the next, it was too late to start. I tied one of these wretches up all night, so as to get the mob early to-morrow. I was very uneasy about the water in our tanks, as every hour's delay was of the greatest

consequence. I had no very great regret at leaving this depot, except that I had not been able to push out more than 150 miles to the west from it. I now thought by going to the new northern range, that my progress thence might be easier. We may perhaps have paid the passing tribute of a sigh at leaving our little gardens, for the seeds planted in most of them had grown remarkably well. The plants that throve best here were Indian gram, maize, peas, spinach, pumpkins, beans, and cucumbers; melons also grew pretty well, with turnips and mustard. Only two wattles out of many dozens sown here came up, and no eucalypts have appeared, although the seeds of many different kinds were set. Gibson had been most indefatigable in keeping the little gardens in order, and I believe was really grieved to leave them, but the inexorable mandates of circumstance and duty forced us from our pleasant places, to wander into ampler realms and spaces, where no foot has left its traces. Departing, still we left behind us some lasting memorials of our visit to this peculiar place, which, though a city of refuge to us, was yet a dangerous and a dreadful home. The water supply was now better than when we arrived.

"Our fount disappearing,
From the rain-drop did borrow,
To me comes great cheering,
I leave it to-morrow."

There were a number of opossums here which often damaged the garden produce in the night. There were various dull-plumaged small birds, with hawks, crows, and occasionally ducks, and one

abominable croaking creature at night used to annoy me exceedingly, and though I often walked up the glen I could never discover what sort of bird it was. It might have been a raven; yes, a raven never flitting may be sitting, may be sitting, on those shattered rocks of wretchedness—on that Troglodytes' shore, where in spirit I may wander, o'er those arid regions yonder; but where I wish to squander, time and energies no more. Though a most romantic region, its toils and dangers legion, my memory oft besieging, what time cannot restore; again I hear the shocks of the shattering of the rocks, see the wallabies in flocks, all trembling at the roar, of the volcanic reverberations, or seismatic detonations, which peculiar sensations I wish to know no more. The horses were mustered at last, and at length we were about to depart, not certainly in the direction I should have wished to go, but still to something new.

Fort Mueller, of course, was named after my kind friend the Baron,* who was a personal contributor to the fund for this expedition. It was really the most astonishing place it has ever been my fortune to visit. Occasionally one would hear the metallic sounding clang, of some falling rock, smashing into the glen below, toppled from its eminence by some subterranean tremour or earthquake shock, and the vibrations of the seismatic waves would precipitate the rocks into different groups and shapes than they formerly possessed. I had many strange, almost superstitious feelings with regard to this singular spot, for there was always a strange depression upon my spirits whilst here, arising partly perhaps from the constant dread of attacks from the hostile

natives, and partly from the physical peculiarities of the region itself.

> "On all there hung a shadow and a fear,
> A sense of mystery, the spirit daunted,
> And said, as plain as whisper in the ear,
> This region's haunted."

On the 16th we departed, leaving to the native owners of the soil, this singular glen, where the water flowed only in the night, where the earthquake and the dry thunderstorm occurred every day, and turned our backs for the last time upon

> "Their home by horror haunted,
> Their desert land enchanted,"

and plunged again into the northern wilderness.

CHAPTER VII.

FROM 16TH JANUARY TO 19TH FEBRUARY, 1874.

The Kangaroo Tanks—Horses stampede—Water by digging—Staggering horses—Deep rock-reservoir—Glen Cumming—Mount Russell—Glen Gerald—Glen Fielder—The Alice Falls—Separated hills—Splendid-looking creek—Excellent country—The Pass of the Abencerrages—Sladen Water—An alarm—Jimmy's anxiety for a date—Mount Barlee—Mount Buttfield—"Stagning" water—Ranges continue to the west—A notch—Dry rocky basins—Horses impounded—Desolation Glen—Wretched night—Terrible Billy—A thick clump of gums—A strong and rapid stream—The Stemodia viscosa—Head first in a bog—Leuhman's Spring—Groener's and Tyndall's Springs—The Great Gorge—Fort McKellar—The Gorge of Tarns—Ants again—Swim in the tarn—View from summit of range—Altitude—Tatterdemalions—An explorer's accomplishments—Cool and shady caves—Large rocky tarn—The Circus—High red sandhills to the west—Ancient lake bed—Burrowing wallabies—The North-west Mountain—Jimmy and the grog bottle—The Rawlinson Range—Moth- and fly-catching plant—An inviting mountain—Inviting valley—Fruitless search for water—Ascend the mountain—Mount Robert—Dead and dying horses—Description of the mob—Mount Destruction—Reflections—Life for water—Hot winds—Retreat to Sladen Water—Wild ducks—An ornithological lecture—Shift the camp—Cockatoo parrots—Clouds of pigeons—Dragged by Diaway—Attacked by the natives.

IT was late on the 16th of January when we left Fort Mueller. We reached our first or Kangaroo Tanks in eleven miles, so called as we saw several kangaroos there on our first visit; but only having

revolvers, we could not get near enough to shoot any of them. The water had remained in them quite as well as I could expect, but we did not use it that night. The horses were evidently inclined to ramble back, so we short-hobbled them; but as soon as it became dusk, they all went off at a gallop. Mr. Tietkens and I went after them, but the wretches would not allow us to get up with them. The moment they heard us breaking any sticks in the scrubs behind them, off they started again; we had to go five or six miles before we could get hold of any of them, and it being cloudy and dark, we hardly knew which way to drive them back; at length we saw the reflection of a fire, and it proved we were taking them right; it was midnight when we got back. We tied one up and waited for morning, when we found they were all gone again, but having one to ride we thought to get them pretty soon. It now appeared that in the scrubs and darkness last night we had missed three. Now we had to use our tank water, the three missing horses not being found by night. The missing horses were found the next day, the 18th, and we continued our journey from these now empty tanks at twelve o'clock, and reached the native clay-pan tanks by night. The second one we had dug, though well shaded, was quite dry, and the native hole contained only sufficient for about half the horses. Some drank it all up, the rest going without, but we consoled them with the assurance that they should have some when we reached the top or Emu Tank. We wanted to fill up our own water-bags, as our supply was exhausted. On reaching it, however, to our disgust we found it perfectly dry, and as we couldn't

get any water, the only thing to do was to keep pushing on, as far and as fast as we could, towards the Alice Falls. We got some water by digging in a small Grevillea (beef-wood-tree), water-channel, about three miles this side of it. The horses were exceedingly thirsty, and some of them when they got water were afflicted with staggers. The grass was beautifully green. The last few days have been comparatively cool. As the horses had two heavy days' stages, I did not move the camp, but Mr. Tietkens and I rode off to the main range to explore the gorges we had formerly seen to the east. The country at the foot of the range was very stony, rough, and scrubby. We reached the mouth of the most easterly gorge, tied up our horses, and walked up. We very soon came upon a fine deep long rock-reservoir with water running into and out of it. I could not touch the bottom with over twenty feet of string. The rocky sides of this gorge rose almost perpendicularly above us, and the farther we went up, the more water we saw, until our passage was completely stopped by the abruptness of the walls and the depth of the water at their feet; I called this Glen Cumming.* The particular part or hill of the range on which this reservoir exists I named Mount Russell; * this was the most eastern mount of the range. We then turned westerly towards the Alice Falls, and in a mile and a half we came to another gorge, where there was a cascade falling into a very clear round basin over twenty feet deep, washed out of solid white stone. There were numerous other basins, above and below the large one. I called this place Glen Gerald. Proceeding on our way, we came to another

cascade and basin; the fall of water was from a lesser height. I called this Glen Fielder. From here we went to the Alice Falls, rested the horses, and had a swim and delicious shower bath. A warm wind from the south-east prevailed all day.

I wished to find a road through or over this range, but will evidently have to go farther to the west, where at seven or eight miles there are apparently two separate hummocks. We returned to camp quite charmed with our day's ramble, although the country was very rough and stony. The vegetation about here is in no way different from any which exists between this range and Mount Olga. Making a move now in the direction of the two apparently separated hills, we passed through some scrub of course, and then came to grassy gum-tree or eucalyptus flats, with water-channels. At twelve miles we came fairly on to the banks of a splendid-looking creek, with several sheets of water; its bed was broad, with many channels, the intermediate spaces being thickly set with long coarse green rushes. The flow of the water was to the north, and the creek evidently went through a glen or pass; the timber grew thick and vigorous; the water had a slightly brackish taste. All through the pass we saw several small sheets of water. One fine hole had great quantities of ducks on it, but Gibson, who started to shoot some of them, couldn't get his gun to go off, but the ducks' fire-arms acted much better, for they went off extremely well.

We encamped at a place near a recent native camp, where the grass was very good. This was

evidently a permanently watered pass, with some excellent country round it to the south.

The range appeared to continue to the west, and this seemed the only pass through it. I called this the Pass of the Abencerrages—that is to say, the Children of the Saddle. The creek and its waters I named Sladen Water, after the late Sir Charles Sladen.* This evening, having had a comfortable bath, I was getting my blankets ready for bed when Jimmy Andrews came rushing over to me. I immediately grabbed a rifle, as I thought it was an attack by the natives. He merely begged to know what day of the month it was, and requested me to mention the fact, with day and date in my journal, that—yes, Gibson was actually seen in the act of bathing. I thought Jimmy was joking, as this I could not believe without the sensible and true avouch of mine own eyes, but there was the naked form, the splashing water, and the swimming dog. It was a circumstance well worth recording, for I am sure it is the first full-bodied ablution he has indulged in since leaving Mount Olga, eighteen weeks to a day, and I am not at all sure that he bathed there. It was therefore with great pleasure that I recorded the unusual circumstance. When Jimmy left me grinning, and I had time to get over my surprise, and give mature consideration to this unusual matter, it did seem to me better, having the welfare of the whole of the members of my expedition at heart—I say, it did appear better, on the principle of the greatest good for the greatest number, that Gibson should endure the agony of an all-over wash, than that we should be attacked and perhaps killed by the natives.

The flies on this range are evidently very numerous, for their attention to our eyes is not only persistent but very annoying.

This morning I made the latitude of this pass to be 24° 58′, and longitude 127° 55′. We followed this creek; travelling along its banks, we found native huts very numerous, and for a few miles some sheets of water were seen; the bed then became too sandy; its course was about north-west. In eight or nine miles we found that sandhill and casuarina country existed, and swallowed up the unfortunate creek. The main line of ranges continued westerly, and, together with another range in front of us to the north, formed a kind of crescent. No pass appeared to exist between them. I now went to the eastern end of a range that lay to the north of us, and passing over a low ridge had a good view of the surrounding country. Ranges appeared in almost all directions; the principal ones lay to the west and north-west. One conspicuous abrupt-faced mount bore north 17° east; this I named Mount Barlee. There were others to the east-north-east, and the long sweep of the range from which we had come to the south. One hill near us looked inviting, and we found a deep rocky gorge with water in its neighbourhood. In fact there were several fine rocky basins ten and twelve feet deep, though they were very rough places to get horses to. I called the high hill Mount Buttfield. It appeared as if no rain had fallen here lately; the water in all these holes was greenish and stagnant, or stagning as Gibson and Jimmy called it. The grass, such as there was, was old, white, and dry. The country down below, north-

wards, consisted of open, sandy, level, triodia ground, dotted with a few clumps of the desert oak, giving a most pleasing appearance to the eye, but its reality is startlingly different, keeping, as it were, the word of promise to the eye, but breaking it to the hope. While the horses were being collected this morning I ascended Mount Buttfield, and found that ranges continued to the west for a considerable distance. I now decided to make for a notch or fall in the main range we had left, which now bore nearly west, as there appeared to be a creek issuing from the hills there. Travelling over casuarina sandhills and some level triodia ground, we found there was a creek with eucalypts on it, but it was quite evident that none of the late showers had fallen there. Hardly any grass was to be found, the ground being open and stony, with thorny vegetation.

In the main channel we could only find deep, rocky, dry basins, but up a small branch gorge I found three small basins with a very limited supply of water, not sufficient for my horses both now and in the morning, so we thought it better that they should do without it to-night. Above the camp there was a kind of pound, so we put all the horses up there, as it was useless to let them ramble all over the country in the night. The ants were excessively troublesome here. I could not find sufficient shade for the thermometer to-day, but kept it as cool as I could for fear of its bursting.

This glen, or rather the vegetation which had existed in it, had been recently burned by the natives, and it had in consequence a still more gloomy and dreary appearance. I called it by its proper name, that is to say, Desolation Glen.

I could get no rest last night on account of the ants, the wretches almost ate me alive, and the horses tried so often to pass by the camp that I was delighted at the reappearance of the morn. Mr. Tietkens also had to shift his camp, and drove the horses back, but ants as big as elephants, or an earthquake that would destroy the world, would never wake Gibson and Jimmy. It was difficult to get the horses to the place where the water was, and we could only manage three at a time. There was fortunately just enough water, though none to spare. One old fool of a horse must needs jump into an empty rock basin; it was deep and funnel-shaped, so that he could not stand when he got there, so he fell, and had knocked himself about terribly before we could get him out. Indeed, I never thought he could come out whole, and I was preparing to get him out in pieces when he made one last super-equine exertion, and fell up and out at the same time.

The delay in watering the horses, and extracting Terrible Billy from the basin, made it twelve o'clock before we could turn our backs upon this hideous place, hoping to find no more like it. We travelled along the stony slope of the range nearly west, and in less than two miles we crossed a small creek-channel with a thick clump of gum-trees right under the range. The tops of a second clump were also visible about half a mile off. Mr. Tietkens went to search down Desolation Creek. I directed Gibson to go on with the horses to the foot of a hill which I pointed out to him, and to remain there until I overtook him. Up the creek close to the clump of timber the whole glen was

choked with a rank vegetation, beneath which the water ran in a strong and rapid stream that issued to the upper air from the bottom of the range. In trying to cross this channel, my horse became entangled in the dense vegetation, whose roots, planted in rich and oozy soil, induced the tops of this remarkable plant to grow ten, twelve, and fifteen feet high. It had a nasty gummy, sticky feel when touched, and emitted a strong, coarse odour of peppermint. The botanical name of this plant is Stemodia viscosa. This vegetation was not substantial enough to sustain my horse, and he plunged so violently that he precipitated me head first into the oozy, black, boggy mass, and it appeared as though he must be swallowed up alive. I had in such a place great difficulty in getting my saddle, rifle, revolver, and other gear off the animal's back. I gave up all hopes of recovering the horse, for he had ceased struggling, and was settling down bodily in the morass.

I left him and ran shouting after Gibson and Jimmy, but they were too far away; Mr. Tietkens, however, on his way after them, heard me and rode up. His astonishment was great indeed when I showed him the horse, now deeply imbedded in the bog. The vegetation could hold us up above the running stream, and at last, but how I never could make out, by dint of flogging, helping to lift, and yelling at him, the creature, when he found we were trying to help him, interested himself once more in the matter, and at length we got him out of this bottomless pit. He was white when he went in, but coal black when he came out. There were no rock-holes at the head of this spring; the water

drains from underneath the mountains, and is permanent beyond a doubt. I called this Luehman's Springs. The water appears on the surface for a little over a mile. Having re-saddled my dirty black beast, we went to the next gorge, where the clump of eucalyptus was very thick and fine-looking; the water here springing from the hills as at the last, we were mighty skeery how we approached this. A fine stream of water ran here.

After this we found five other glens with running springs, in about as many miles; they were named respectively, but afterwards, Groener's and Tyndall's Springs, the Great Gorge, Fort McKellar,* where I subsequently had a depot, and the Gorge of Tarns. Fort McKellar is the most western water suitable for a depot, and is the most agreeable encampment. Many of these glens had fine rock-holes as well as running springs; most of the channels were full of bulrushes and the peculiar Stemodia. This plant is of a dark-green colour, of a pulpy nature, with a thick leaf, and bears a minute violet-coloured flower. It seemed very singular that all these waters should exist close to the place I called Desolation Glen; it appeared as if it must be the only spot on the range that was destitute of water. After some time spent in exploring these charming places, it was time to look about for the horses, and though Gibson had crossed all these channels within sight of their waters, he never stopped for a moment to see if the horses would drink. We expected to overtake him in a mile or two, as the hill pointed out to him was now close at hand. The country was so solid and stony that we

could not follow the tracks of the horses for any distance, they could only be picked up here and there, but the country being open, though rising and falling into gullies and ridges, we thought to see them at any moment, so that, as we had found so many waters and the day was Sunday, I wanted to camp early and rest. Gibson, however, kept driving on, driving on, going in no particular direction—north, north-north-west, north-west, south-west, north again; and having got such a start of us, it was just night when we overtook him, still driving on up a dry creek, going due south, slap into the range amongst rocks and stones, &c. I was greatly annoyed, for, having found six splendid permanent waters, we had to camp without a drop of water either for ourselves or our horses, the animals being driven about the whole day when they might have had a fine day's rest, with green grass and splendid water. It is impossible to drill sense into some people's heads; but there—perhaps I had no sense in coming into such a region myself.

A fierce, warm south wind blew all night; the ants were dreadful, and would not allow me to sleep for a minute, though the others did not seem to feel them. The range still continued to the west, and other creeks were visible in that direction, but I decided to return to the last water I had seen—that is to say, at the Gorge of Tarns. Not being able to sleep, I went after the horses long before daylight, and found they had wandered a terrible distance, although short-hobbled. I soon found out the cause, for one horse had been loose all night with his pack on, and had consequently led the others a

fine jaunt. When all were found and packed, we returned to the gorge which, in consequence of its having so many splendid basins of deep water, I named as before said. On arriving, we fixed our camp close up to the large basins, but the horses could water a mile below, where some tea-tree grew, and where the water reappeared upon the surface after sinking beneath it. There was some good feed here for the horses, but it was over a very limited area.

We had a swim in the fine rocky tarn, and we were delighted to be joined by Gibson in our ablutions. Could the bottom of this pool be cleared of the loose blocks of stone, gravel, and sand, it would doubtless be found of very great depth; but the rains and floods of ages have nearly filled it with stones, loosened from the upper rocks, and it is only in the crevices between the rocks at the bottom that one can discover the depth to be greater than seven feet. Shade here is very scarce when the sun is overhead, except up around the large basin, where there are caves and overhanging rocky ledges, under which we sit, and over which the splashing waters from their sources above fall into the tarn below.

The view from the top of the range was very similar to that from Mount Buttfield, only that now to the south we could see an horizon of scrub. To the north, the natives were burning the spinifex, and this produced such a haze that no definite view could be obtained. Other portions of the range quite prevented a western view. The altitude of this summit was a little over 3000 feet above sea level.

Not being able to glean any farther information about the surrounding country, we (con)descended to work in the shady caves, swimming and working alternately during the day, for we had plenty of the ever-recurring tasks to do, viz. the repairing of pack-bags and clothes, and the unravelling of canvas for twine.

The first night we passed here was close and hot. We had so much of sewing to do that we set to work with a will; our clothes also require as much attention as the pack-bags and pack-saddles. No one could conceive the amount of tearing and patching that is for ever going on; could either a friend or stranger see us in our present garb, our appearance would scarcely be thought even picturesque; for a more patched and ragged set of tatterdemalions it would be difficult to find upon the face of the earth. We are not, indeed, actually destitute of clothes, but, saving our best for future emergencies, we keep continually patching our worst garments, hence our peculiar appearance, as our hats, shirts, and trousers, are here and there, so quilted with bits of old cloth, canvas, calico, basil, greenhide, and old blanket, that the original garment is scarcely anywhere visible. In the matter of boots the traveller must be able to shoe himself as well as his horses in these wild regions of the west. The explorer indeed should be possessed of a good few accomplishments—amongst these I may enumerate that he should be able to make a pie, shoe himself or his horse; jerk a doggerel verse or two, not for himself, but simply for the benefit or annoyance of others, and not necessarily for publication, nor as a guarantee of good faith; he must be able to take,

and make, an observation now and again, mend a watch, kill or cure a horse as the times may require, make a pack-saddle, and understand something of astronomy, surveying, geography, geology, and mineralogy, et hoc, simile huic.

With regard to shoeing oneself, I will give my reader some idea of what strength is required for boots in this country. I repaired mine at Fort Mueller with a double sole of thick leather, with sixty horseshoe nails to each boot, all beautifully clenched within, giving them a soft and Turkish carpet-like feeling to the feet inside; then, with an elegant corona of nail-heads round the heel and plates at the toes, they are perfect dreadnoughts, and with such understandings I can tread upon a mountain with something like firmness, but they were nearly the death of me afterwards for all that.

In the shade of our caves here the thermometer does not rise very high, but in the external glen, where we sleep in the open air, it is no cooler.

On the 29th we left this cool and shady spot—cool and shady, however, only amongst the caves—and continued our march still westward, along the slopes of the range.

In eight miles we crossed ten creeks issuing from glens or gorges in the range; all that I inspected had rocky basins, with more or less water in them. Other creeks were seen ahead, but no view could be got of any horizon to the west; only the northern and eastern ones being open to our view. The country surrounding the range to the north appeared to consist of open red sandhills, with casuarina in the hollows between. At sixteen miles I found a large rocky tarn in a creek-gorge; but

little or no grass for the horses—indeed, the whole country at the foot of this range is very bare of that commodity, except at Sladen Water, where it is excellent.

Since we left Sladen Water the horses have not done well, and the slopes of this range being so rough and stony, many of them display signs of sore-footedness. I cannot expect the range to continue farther than another day's stage; and though I cannot see its end, yet I feel 'tis near.

Many delays by visiting places caused it to be very late when we sat down amongst stones and triodia to devour our frugal supper. A solitary eagle was the monarch of this scene; it was perched upon the highest peak of a bare ridge, and formed a feathery sky-line when looking up the gorge—always there sat the solemn, solitary, and silent bird, like the Lorelei on her rock—above—beautifully, there, as though he had a mission to watch the course of passing events, and to record them in the books of time and fate. There was a larger and semicircular basin still farther up the gorge; this I called the Circus, but this creek and our rock-hole ever after went by the name of the Circus. In a few miles the next day I could see the termination of the range. In nine miles we crossed three creeks, then ascended a hill north of us, and obtained at last a western view. It consisted entirely of high, red sand-hills with casuarinas and low mallee, which formed the horizon at about ten miles. The long range that had brought us so far to the west was at an end; it had fallen off slightly in altitude towards its western extremity, and a deep bed of rolling sand-hill country, covered with desert vegetation, sur-

rounded it on all sides. Nearer to us, north-westerly, and stretching nearly to west, lay the dry, irregular, and broken expanse of an ancient lake bed. On riding over to it we found it very undefined, as patches of sandhills occurred amongst low ridges of limestone, with bushes and a few low trees all over the expanse. There were patches of dry, soda-like particles, and the soil generally was a loose dust-coloured earth. Samphire bushes also grew in patches upon it, and some patches of our arch-enemy, triodia. Great numbers of wallaby, a different kind from the rock, were seen amongst the limestone rises; they had completely honeycombed all we inspected. Water there was none, and if Noah's deluge visited this place it could be conveniently stowed away, and put out of sight in a quarter of an hour.

Returning to the horses, we turned southerly to the most westerly creek that issues from the range. I found some water up at the head of it in rock-holes; but it was so far up easterly, that we could not have been more than five or six miles across the hills from our last night's encampment at the Circus. There was only a poor supply of water in two small holes, which could not last longer than three days at the most. The thermometer ranged up to 104° to-day. Some of the horses are now terribly footsore. I would shoe them, only that we are likely to be in the sandhills again immediately. I did not exactly know which way to go. Mr. Tietkens and I ascended the highest hill in this part of the range. I had yesterday seen something like the top of a ridge south-westerly; I now found it was part of a low distant range, and not of a very

promising nature. There was a conspicuous mountain, which now bore north-east about fifty miles away, and I fancied I saw the refracted tops of other ranges floating in the mirage. I thought, from the mountain just mentioned, I might discover others, which might lead me away to the west. Up to the present time we had always called this, in consequence of its bearing when first seen, the North-west Mountain. I thought a change of country might be met with sooner in a north or north-westerly direction than in a west or south-westerly one, as the sources of the Murchison River must be met somewhere in the former direction. I tried the boiling-point of water here, and found that the ebullition occurred at two degrees higher than at the Alice Falls, which indicated a fall of nearly 1000 feet, the western end of the range being much lower than the middle or eastern. We had still a couple of bottles of spirit left in the medical department, and as nobody seemed inclined to get ill, we opened one here. Jimmy Andrews having been a sailor boy, I am afraid had learnt bad habits, as he was very fond of grog. When we opened the last bottle at Christmas, and Jimmy had had a taste, he said, "What's the use of only a nobbler or two? I wouldn't give a d——," dump, I suppose he meant, "for grog unless I could get drunk." I said, "Well, now, my impression is that it would require very little grog to do that." He said, "Why, I'd drink six bottles off and never know it." I said, "Well, the next bottle we open you shall have as much out of it as you can take in one drink, even if you drink the whole bottle." He replied, "Oh, all right, I'll leave a nobbler for you, you know, Mr. Giles; and

I'd like to give Tietkens a taste; but that [adjective] Gibson, I'll swear he won't git none." So we opened the bottle, and I said, "Now then, Jimmy, here's your grog, let's see how much you can drink." "Oh!" said he, "I ain't going to drink it all at once." "All right," I said, "if you don't, we shall—so now is your chance." Jimmy poured out a good stiff glass and persisted in swallowing it raw. In five minutes he was fast asleep, and that was all he got out of the bottle; he never woke till morning, and then—well, the bottle was empty then.

My readers will form a better idea of this peculiar and distant mountain range when I tell them that it is more than sixty miles long, averaging five or six miles through. It is of a bold and rounded form; there is nothing pointed or jagged in its appearance anywhere, except where the eagle sat upon the rock at the Circus; its formation is mostly a white conglomerate, something between granite, marble, and quartz, though some portions are red. It is surrounded, except to the east, by deserts, and may be called the monarch of those regions where the unvisited mountains stand. It possesses countless rocky glens and gorges, creeks and valleys, nearly all containing reservoirs of the purest water. When the Australian summer sunset smooths the roughness of the corrugated range, like a vast and crumpled garment, spread by the great Creator's hand, east and west before me stretching, these eternal mountains stand. It is a singular feature in a strange land, and God knows by what beady drops of toilsome sweat Tietkens and I rescued it from its former and ancient oblivion. Its position in latitude is between the

24th and 25th parallels, and its longitude between 127° 30′ and 128° 30′. I named it the Rawlinson Range, after Sir Henry Rawlinson, President of the Royal Geographical Society of London. I found a singular moth, and fly-catching, plant in this range; it exudes a gummy substance, by which insects become attached to the leaves. The appearance of this range from a distance is white, flat, corrugated, rounded, and treeless. It rises between 1100 and 1200 feet in its highest portions, about the centre, in the neighbourhood of Fort McKellar, above the surrounding country, though its greatest elevation above the sea is over 3000 feet.

On the 1st of February, after a very hot night, we made a late start for the North-west Mountain, which now bore nearly north-east. It took some miles to get clear of the stones of the range, the appearance of the new feature we were steering for being most inviting. Its corrugated front proclaimed the existence of ravines and gorges, while a more open valley ran between it and some lower hills immediately to the west of it.

The horses were so delighted to get off the stones, that they travelled uncommonly fast, and we got over twenty-eight miles by night, though the country was exceedingly heavy travelling, being all high, red sandhills, and until near the end of our day's stage we could scarcely ever see the mountain at all. We encamped without water, but I expected to get some early next day at the mountain. Two of the horses lay down at the camp all night, being thirsty, tired, and footsore; there was no grass for them. The thermometer to-day indicated 108° in the shade. A great number of

the horses, from being footsore, were lying down this morning, and when mustered they all looked excessively hollow and thirsty. If no water be found at this mountain, how many of them will be alive in a couple of days? Yesterday we made twenty-eight, and to-day at twenty-three, miles we reached the foot of the mount. There was an inviting valley, up which we took the horses a mile. Then, leaving Gibson and Jimmy to await our return, Mr. Tietkens and I rode away in search of water. It was evident that only a trifling shower, if any, had visited this range, for not a drop of water could be found, nor any rock reservoirs where it might lodge. We parted company, and searched separately, but when we met again we could only report to each other our non-success. It was now past two o'clock, our horses had been ridden somewhat fast over the most horrible and desolate stony places, where no water is, and they were now in a very exhausted state, especially Mr. Tietkens's.

There were yet one or two ravines in the southern face of the range, and while I ascended the mountain, Mr. Tietkens and the others took the horses round that way and searched. From the summit of this sterile mount I had expected at least a favourable view, but to my intense disappointment nothing of the kind was to be seen. Two little hills only, bearing 20° and 14° west of north, were the sole objects higher than the general horizon; the latter was formed entirely of high, red sand-hills, with casuarina between. To the east only was a peaked and jagged range, which I called Mount Robert, after my brother; all the rest was a bed of undulating red sand. What was to be

hoped from a region such as this? Could water exist in it? It was scarcely possible. For an independent watercourse I could not hope, because in the many hundreds of miles westward from the telegraph line which we had travelled, no creek had been met, except in the immediate vicinity of ranges, and not a drop of water, so to speak, had I obtained away from these. I was upon the point of naming this Mount Disappointment, it looked so inviting from a distance, and yet I could find no water; and if none here, what possibility could there be of getting any in the midst of the dense bed of sandhills beyond? I did not test the boiling-point of water, for I had none to boil, but the elevation was about 1100 feet above the surrounding country. From a distance this mount has a very cheering and imposing appearance, and I would have gone to it from almost any distance, with a full belief in its having water about it. But if, indeed, the inland mountain has really voice and sound, what I could gather from the sighings of the light zephyrs that fanned my heated brow, as I stood gazing hopelessly from this summit, was anything but a friendly greeting, it was rather a warning that called me away; and I fancied I could hear a voice repeating, Let the rash wand'rer here beware; Heaven makes not travellers its peculiar care.

Descending now, I joined the others at the foot of the hill, when Mr. Tietkens and Gibson informed me they had searched everywhere, but in vain. The horses were huddled together in the shade of a thicket, three or four of them lying down with their packs on, and all looking the pictures of wretchedness and woe. It was now past four

o'clock, and there was no alternative but to retreat.

The Gorge of Tarns, thirty miles away, about south-south-west, was the nearest water, but between us and it was another low range with a kind of saddle or break in the middle. I wished, if possible, to get over this before night, so we turned the horses' heads in that direction. One fine horse called Diamond seemed suffering more than the rest. Mr. Tietkens's riding-horse, a small blue roan, a very game little animal that had always carried him well, albeit not too well treated, was also very bad, and two others were very troublesome to drive along. The saddle in the low range was a most difficult and stony pass; so dreadfully rough and scrubby was it, I was afraid that night would descend upon us before we could reach the southern side. Mr. Tietkens's Bluey gave in here, and fell heavily down a stony slope into a dense thicket of scrub; we had the greatest difficult in getting him out, and it was only by rolling him over the stones and down the remainder of the slope, for he could not stand, that we got him to the bottom. He was severely cut and bruised in the descent. We just managed to get clear of the stones by dark, and unpacked the exhausted animals, which had been travelling almost ever since daylight. We had no water except a mouthful for the little dog. The thermometer stood at 108°, ourselves and our horses were choking for water.

In the morning several of the horses were lying dying about the camp; Bluey, Diamond, a little cob—mate or brother of the one killed on Elder's

Creek—and one or two more, while those that were able had wandered away. Though we were up and after them at three in the morning, it was ten before I could despatch Mr. Tietkens and Jimmy with the main mob. Poor little Bluey died soon after sunrise. Gibson was after the absent horses, which he brought at length, and we packed up and went after the others. Gibson's usual riding-horse, Trew, was very bad, and quite unable to carry him. Mr. Tietkens was now riding an old horse which I had purchased in Victoria, and had owned for some time; he was called Widge. I had him out on my former expedition. He was a cool, calculating villain, that no ordinary work could kill, and he was as lively as a cricket when Mr. Tietkens rode him away; he usually carried a pack. Jimmy carried the little dog Cocky, now nearly dead from thirst and heat, though we had given him the last drop of water we possessed. Dogs, birds, and large beasts in Australia often die of heat, within sight of water. Jimmy was mounted on a gray-hipped horse, which was also out on my former trip; he carried his rider well to the end. Gibson I had mounted on a young bay mare, a creature as good as they make them; she was as merry and gay, as it is possible for any of her sex, even of the human kind, to be. Her proper name was the Fair Maid of Perth; but somehow, from her lively, troublesome, and wanton vagaries, they called her the Sow-Cow. My own riding-horse, a small, sleek, cunning little bay, a fine hack with excellent paces, called W. A., I also had out previously. He would pull on his bridle all day long to eat, he would even pretend to eat spinifex; he was now very bad and

footsore. Gibson and I overtook Mr. Tietkens and Jimmy, and we pushed on as fast as we could, the distance we had now to go, not being more than ten or eleven miles. The sandhills were exceedingly high and severe, but all the horses got over the last one.

We were now in full view of the range, with the Gorge of Tarns not more than five miles away. But here Diamond and another, Pratt, that I had out by myself at the stinking pit in November, fell, never to rise. We took off their packs and left them on the ground. The thermometer then stood at 106° in the shade. We pushed on, intending to return immediately with water to the relief of these unfortunates. The pack-horses now presented a demoralised and disorganised rout, travelling in a long single file, for it was quite impossible to keep the tail up with the leaders. I shall try to give my reader some slight idea of them, if description is sufficiently palpable to do so. The real leader was an old black mare, blear-eyed from fly-wounds, for ever dropping tears of salt rheum, fat, large, strong, having carried her 180 lbs. at starting, and now desperately thirsty and determined, knowing to an inch where the water was; on she went, reaching the stony slopes about two miles from the water. Next came a rather herring-gutted, lanky bay horse, which having been bought at the Peake, I called Peveril; he was generally poor, but always able, if not willing, for his work. Then came a big bay cob, and an old flea-bitten gray called Buggs, that got bogged in the Stemodia Viscosa Creek, and a nuggetty-black harness-horse called Darkie, always very fat. These last three carried 200 lbs. each at

starting. Then Banks, the best saddle-horse I have, and which I had worked too much in dry trips before reaching this range; he was very much out of sorts and footsore. Then an iron-grey colt, called Diaway, having been very poor and miserable when first purchased, but he was a splendid horse. Then came the sideways-going old crab, Terrible Billy. He was always getting into the most absurd predicaments—poor old creature; got down our throats at last!—falling into holes, and up and down slopes, going at them sideways, without the slightest confidence in himself, or apparent fear of consequences; but the old thing always did his work well enough. Blackie next, a handsome young colt with a white stripe down his face, and very fast; and Formby, a bay that had done excellent harness-work with Diamond on the road to the Peake; he was a great weight-carrier. The next was Hollow Back, who had once been a fine-paced and good jumping horse, but now only fit for packing; he was very well bred and very game. The next was Giant Despair, a perfect marvel. He was a chestnut, old, large-framed, gaunt, and bony, with screwed and lately staked feet. Life for him seemed but one unceasing round of toil, but he was made of iron; no distance and no weight was too much for him. He sauntered along after the leaders, looking not a whit the worse than when he left the last water, going neither faster nor slower than his wont. He was dreadfully destructive with his pack-bags, for he would never get out of the road for anything less than a gum-tree. Tommy and Badger, two of my former expedition horses; Tommy and Hippy I bought a second time from Carmichael, when

coming up to the Peake. Tommy was poor, old, and footsore, the most wonderful horse for his size in harness I ever saw. Badger, his mate, was a big ambling cob, able to carry a ton, but the greatest slug of a horse I ever came across; he seems absolutely to require flogging as a tonic; he must be flogged out of camp, and flogged into it again, mile after mile, day after day, from water and to it. He was now, as usual, at the tail of the straggling mob, except Gibson's former riding-horse called Trew. He was an excellent little horse, but now so terribly footsore he could scarcely drag himself along; he was one of six best of the lot. If I put them in their order I should say, Banks, the Fair Maid of Perth, Trew, Guts (W. A.), Diaway, Blackie and Darkie, Widge, the big cob Buggs—the flea-bitten grey—Bluey, Badger, who was a fine ambling saddle-horse, and Tommy; the rest might range anyhow. The last horse of all was the poor little shadow of a cob, the harness-mate of the one killed at Elder's Creek. On reaching the stones this poor little ghost fell, never again to rise. We could give him no relief, we had to push on. Guts gave in on the stones; I let him go and walked to the water. I need scarcely say how thirsty we all were. On reaching the water, and wasting no time, Mr. Tietkens and I returned to the three fallen horses, taking with us a supply of water, and using the Fair Maid, Widge, Formby, and Darkie; we went as fast as the horses could go. On reaching the little cob we found him stark and stiff, his hide all shrivelled and wrinkled, mouth wide open, and lips drawn back to an extraordinary extent. Pushing on we arrived where Diamond and Pratt had

fallen. They also were quite dead, and must have died immediately after they fell; they presented the same appearance as the little cob. Thus my visit to the North-west Mountain had cost the lives of four horses, Bluey, Diamond, Pratt, and the cob. The distance they had to travel was not great—less than ninety miles—and they were only two nights without water; but the heat was intense, the country frightful, and to get over the distance as soon as possible, we may have travelled rather fast. The horses had not been well off for either grass or water at starting, and they were mostly footsore; but in the best of cases, and under the most favourable start from a water, the ephemeral thread of a horse's life may be snapped in a moment, in the height of an Australian summer, in such a region as this, where that detestable vegetation, the triodia, and high and rolling sandhills exist for such enormous distances. The very sight of the country, in all its hideous terrors clad, is sufficient to daunt a man and kill a horse. I called the vile mountain which had caused me this disaster, Mount Destruction, for a visit to it had destroyed alike my horses and my hopes. I named the range of which it is the highest point, Carnarvon Range.

We returned again to the Gorge of Tarns, as Mr. Tietkens very tritely remarked, sadder but wiser men. Our position here is by no means enviable, for although there is plenty of permanent water in this range, it appears to be surrounded by such extensive deserts that advance or retreat is equally difficult, as now I had no water in tanks or otherwise between this and Fort Mueller, and not a horse might ever reach that goal. I am again

seated under the splashing fountain that falls from the rocks above, sheltered by the sunless caverns of this Gorge of Tarns, with a limpid liquid basin of the purest water at my feet, sheltered from the heated atmosphere which almost melts the rocks and sand of the country surrounding us—sitting as I may well declare in the shadow of a great rock in a weary land, but we cannot shut out from the mind the perils we have endured, the perils we may yet have to endure. For the present our wants and those of our gallant horses are supplied, but to the traveller in such a wilderness, when he once turns his back upon a water, the ever-recurring question presents itself, of when and where shall I obtain more? The explorer is necessarily insatiable for water; no quantity can satisfy him, for he requires it always and in every place. Life for water he will at any moment give, for water cannot be done without. Thermometer in outer shade 106°; in the caverns 98°.

We shall have to remain here for a few days. The bare rocks in this glen and the walls of stone that form it become so heated during the day that the nights passed in it are most oppressive. The rocks have not time to cool before the sun is upon them again, and at evening, when descending from the caves, we find the thermometer actually rises in the night air. In the caves during to-day it was 98°, and at eight o'clock at night outside it was 101°. We are pestered here terribly by flies, but not plagued by either ants or mosquitoes. This evening Gibson and Jimmy shot three wallabies. This range swarms also with pigeons in every gorge and glen, and they come in clouds at night and

morning for water. Unfortunately nearly all our sporting ammunition is gone, though I have a good supply of defensive. To-day the thermometer in the caves was only 88°, while in the outside shade 104°, the cause being hot winds from the south-east. While here we shod the most tender-footed of our horses. There was a good deal of thunder and lightning. The daytime in this gorge is less oppressive than the night. The sun does not appear over the eastern hills until nearly nine o'clock, and it passes behind the western ones at about 4.15 P.M. The horses cannot recover well here, the ground being too stony, and the grass and herbage too poor; therefore I shall retreat to the Pass of the Abencerrages and the pleasant encampment of Sladen Water. One horse, Tommy, was still very bad, and had to be left on the road, not from want of water, but old age and exhaustion. I sent for him the next day, and he rejoined the mob. We got back on the 12th of February; there was a fine lot of ducks when we arrived, but those sportsmen Gibson and Jimmy went blazing away as usual without getting one, wasting the powder and shot, which has now become such a scarcity, and losing and making the ducks wild into the bargain. The birds were so frightened that they split into several mobs, and only one mob of eight remained at the pass. I wanted to get these, and went to some trouble to do so. I first walked away and got a horse, and riding him bare-backed I drove the ducks quietly down to the camp water-hole, but the moment they arrived, I being behind with the horse, Gibson and Jimmy must needs go blazing away at them again, although they knew they could

never hit any of them; and just as I arrived I heard the report and saw all the ducks come flying overhead up the pass. They went up therefore through the regions of the air singing sweetly as they went, but I did not sing so sweetly on the occasion. Then ensued quite a scientific little ornithological lecture on my part, referring mostly to the order of ducks, and the species known as wild ones more particularly, and I explained the subject to them in such a plain and forcible manner that both of them admitted they quite understood what I was talking about, which is a great matter for lecturers to consider, because if, after a forcible harangue, a speaker's audience is in any way mystified, or not in touch with him as to the meaning of his remarks, why, then, his time and labour are both lost; therefore I purposely refrained from any ambiguity, and delivered my figures of speech and rounded periods in words suitable for the most ordinary comprehension, and I really think it had a good effect on both of them. Of course I addressed them more in sorrow than in anger, although the loss of eight ducks was a frightfully heavy one to all of us; but I was partially consoled with the thought that they would have to bear their share of the loss. A few hours afterwards I went after the ducks again, and by good fortune bagged six in one shot; one got away in the bushes, and the other flew away; and he seemed to me to have a very crooked flew at that. These were the fattest birds I ever ate. We had a fine supper of ducks, their flavour being sup(p)er-excellent.

The ants were terribly troublesome at this water-

[1]though we slept on the damp sand; so we

DRAGGED BY DIAWAY.

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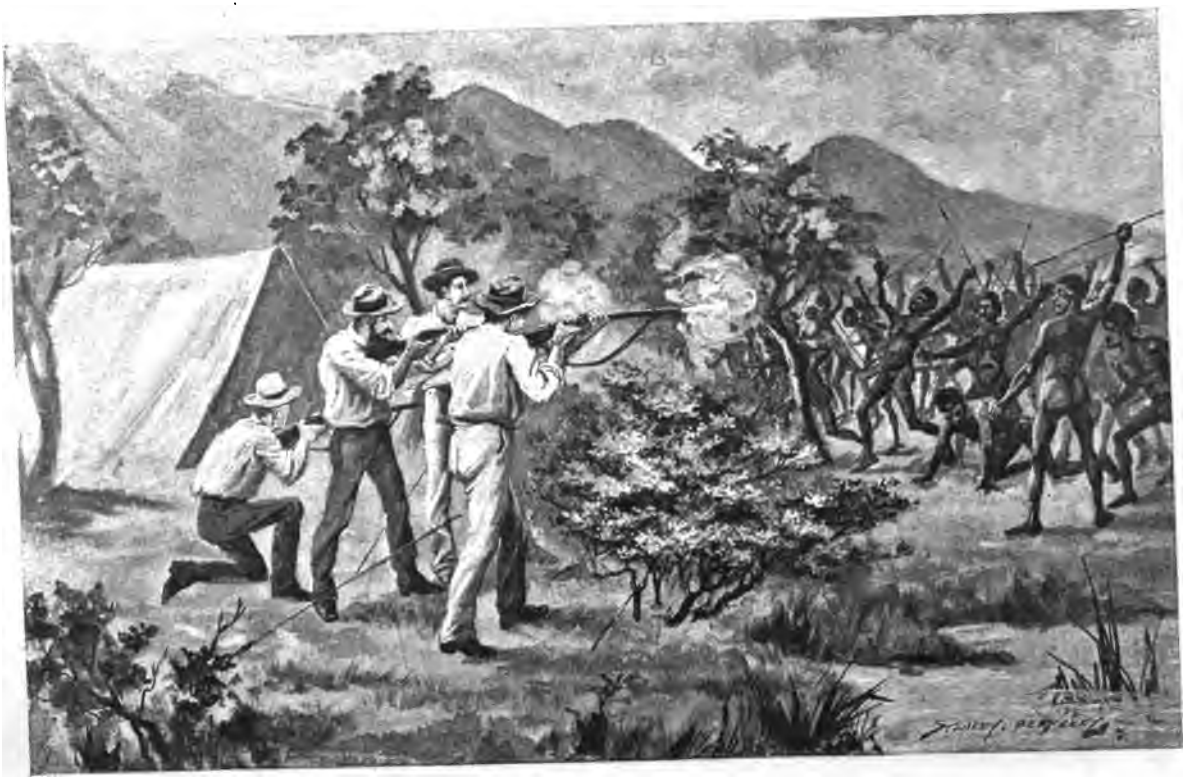
shifted the camp up to the sweet water-hole, and selected as open a piece of ground as possible, as I intended the camp to remain here for a week or two. More thunder and lightning, with great heat and a few drops of rain. Thermometer, 106°. There were countless numbers of the little cockatoo parrots here; they are very shy, and even when Gibson or Jimmy lets off a gun at them, a dozen or two are sure to fall; it takes some time, however, before another shot can be had at them. I fancy they are migrating. The pigeons swarm at night to water. I intend to visit the ridges which I mentioned as lying to the south-west, from the west end of this range. We shod the old black mare, Diaway, and old Buggs, to take with us. The 18th of February, 1874, was like to have proved a most eventful day in my life, for it was very nearly the termination of it. I was riding Diaway, the colt just shod; he is seldom ridden, though a very fine hack, as he is such a splendid weight-carrier as a pack-horse; he is rather skittish, and if anything goes wrong with his pack, he'll put it right (on the ground) almost instantaneously. I was driving all the horses up to the camp, when one broke from the mob, and galloped across the creek. There was a bank of stones about three feet high, which was hidden by a growth of rushes; Diaway went bounding over the great bushes and inequalities of the channel, and reached the bank without seeing it, until too late, when he made a bound at, but fell on the top of, it, rolling over upon me at the same time. He scrambled up, but left me on the broad of my back. On my feet were those wonderful boots before described, with the sixty

horseshoe nails in each, and it was no wonder that one of my feet got caught in the stirrup on the off side of the horse. It is one of the most horrible positions that the mind can well imagine, to contemplate being dragged by a horse. I have been dragged before now, and only escaped by miracles on each occasion. In this case, Diaway, finding me attached to him, commenced to lash out his newly-shod heels at me, bounding away at the same time into a dense thicket of scrub close by. Mr. Tietkens and the others seeing the accident came running up behind, as Diaway and I were departing. Fortunately I was not dragged far, but was literally kicked free from and by, the frightened and uncontrolled animal. The continual kickings I received—some on my legs and body, but mostly upon that portion of the frame which it is considered equally indecorous to present either to a friend or an enemy—at length bent one or two of the nail-heads which held me, and, tearing the upper leather off my boot, which fortunately was old, ripped it off, leaving me at length free. As I lay on my excoriated back, I saw Diaway depart without me into the scrub, with feelings of the most profound delight, although my transports were considerably lessened by the agonising sensations I experienced. Mr. Tietkens helped me to hobble over to the camp in a most disorganised state, though thanking Providence for so fortunate an escape. Had Diaway but entered the scrub not two yards from where I was released, I could not have existed more than a minute. The following day Mr. Tietkens was getting everything ready to go with me to the south-west ridges, though I had great doubts of my ability to ride, when we



ATTACK AT SLADEN WATER.

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became aware of the presence of a whole host of natives immediately below the camp. All the morning the little dog had been strangely perturbed, and we knew by the natives' fires that they were in our immediate neighbourhood. There was so much long grass and tall rushes in the creek bed, that they could approach very close before we could possibly see them. So soon as they found themselves detected, as usual they set up the most horrible yells, and, running up on the open ground, sent a flight of spears at us before a rifle or a gun could be seized, and we had to jump behind a large bush, that I left standing on purpose, to escape. Our stand of arms was there, and we immediately seized them, sending the bullets flying just above their heads and at their feet. The report of the weapons and the whirring sound of the swiftly passing shots made them pause, and they began an harangue, ordering us out of their territories, to the south. Seeing us, however, motionless and silent, their courage returned, and again they advanced, uttering their war cries with renewed energy. Again the spears would have been amongst us; but I, not relishing even the idea of barbed spears being stuck through my body, determined not to permit either my own or any of my party's lives to be lost for the sake of not discharging my firearms. Consequently we at length succeeded in causing a rout, and driving the enemy away. There were a great number of natives in the bushes, besides those who attacked us. There were not many oldish men among them, only one with grey hair. I am reminded here to mention that in none of my travels in these western wilds

have I found any places of sepulture of any kind. The graves are not consumed by the continual fires that the natives keep up in their huntings, for that would likewise be the fate of their old and deserted gunyahs, which we meet with frequently, and which are neither all nor half destroyed. Even if the natives put no boughs or sticks upon their graves, we must see some mounds or signs of burial-places, if not of bones or skulls. My opinion is, that these people eat their aged ones, and most probably those who die from natural causes also.

It was a cool, breezy day, and, in consequence of the hostile action of the natives, I did not depart on the south-west excursion. I was not sorry to delay my departure, for I was in great pain all over. I now decided to leave Mr. Tietkens and take Jimmy with me. I cannot say I anticipate making any valuable discovery on this trip; for had there been ranges of any elevation to the westward, or beyond the ridges in question, I should in all probability have seen them from the end of this range, and should have visited them in preference to Mount Destruction. I felt it incumbent on me to visit them, however, as from them I might obtain a view of some encouraging features beyond.

CHAPTER VIII.

FROM 20TH FEBRUARY TO 12TH MARCH, 1874.

Journey south-west—Glens and springs—Rough watering-place—A marble bath—Glassy rocks—Swarms of ants—Solitary tree—An oven—Terrible night—And day—Wretched appearance of the horses—Mountains of sand—Hopeless view—Speculations—In great pain—Horses in agony—Difficulty in watering them—Another night of misery—Dante's Inferno—The waters of oblivion—Return to the pass—Dinner of carrion—A smoke-house—A tour to the east—Singular pinnacle—Eastern ranges—A gum creek—Basins of water—Natives all around—Teocallis—Horrid rites—A chip of the old block—A wayside inn—Gordon's Springs.

TAKING Jimmy and three horses, we travelled, after clearing the pass, on the south slopes of the range westward, crossing several small creek-channels, which might or might not have waters in them. At twelve miles we came to a green-looking channel and found water, running so far down as a rocky hole, near where we crossed. We outspanned here for an hour, as I found riding very severe toil after my late kicking. I named this secluded but pretty little spot, Glen Helen. It was very rough travelling ground—worse than on the northern side of the range. Three miles farther, we crossed another running water, and called it Edith Hull's Springs. At ten miles farther, after crossing several channels, we turned up one, and got some water in a very rough and stony gorge off the main channel, which

was dry. There was very poor feed, but we were compelled to remain, as there was no other creek in sight for some miles, and the horses, although shod, could only travel slowly over the terribly rough ground. When we turned them out, they preferred to stand still, rather than roam about among the rocks and boulders for food. The day was cool; the southern horizon, the only one we could see, was bounded entirely by red sandhills and casuarina timber. The horses ate nothing all night, and stood almost where they were hobbled.

In this region, and in the heat of summer, the moment horses, no matter how fat and fresh they may be, are taken away from their companions to face the fearful country that they know is before them, they begin to fret and fall away visibly. They will scarcely eat, and get all the weaker in consequence, and then they require twice as much water as they otherwise would if their insides were partly filled with grass. When I released our three from the hobbles this morning, they immediately pretended to feed; but this old ruse has been experienced before, and time was now up, to move on again. They were very thirsty, and nearly emptied the rock basin, where we had a kind of bath before starting. Along the foot-hills over which we were obliged to travel, the country was much rougher than yesterday; so much so, that I kept away as much as possible. At twenty miles we turned up a creek-channel, which proved to be a dreadful gorge, being choked up with huge boulders of red and white granite. Among these I found a fine rock tarn; indeed, I might call it a marble bath, for the rock was almost pure white,

and perfectly bare all round. The water was considerably over our heads, and felt as cold as ice. It was a dreadful place to get horses up to, and two of them fell two or three times on the glassy, shelving, and slippery rocks. The old grey, Buggs, hurt himself a good deal.

Time seems to fly in these places, except when you want it to do so, and by the time the horses got down from the water the day was nearly gone. The feed for them was very little better than at our last night's camp, nor was the glen any less stony or rough. The day was 12° hotter than yesterday; the thermometer indicated 104°. The ants in this glen were frightful; they would not allow me a moment's rest anywhere. There was but one solitary eucalyptus or gum-tree, and in its scanty shade they swarmed in countless myriads. The sun poured his fiery beams full down upon us, and it was not until he departed over the cliffs to the west that we had a moment's respite; the place was a perfect oven.

I passed the time mostly in the marble bath, and then took a walk up to the top of the range and could see the hills I desired to visit; they now bore nearly south-west. So long as the sun's rays were pouring down upon their unsheltered hides, the horses would not attempt to eat, but when he departed they fed a little on the coarse vegetation. This glen, like all the others in this range, swarmed with pigeons, and we got enough for breakfast at one shot. During the hot months, I believe whites could live entirely on pigeons in this range. At the camp at Sladen Water they came to the water in clouds, their very numbers sometimes preventing

us getting a good shot, and we had been living entirely on them, for now we had no other meat. Unfortunately, our ammunition is almost exhausted, but so long as it lasts we shall have birds. When it is gone we must eat horseflesh, and should have been driven to do so before now, only for these birds. I have an old horse now fattening for the knife, and I am sorry, i.e. happy, to say, whenever I inspect him he looks better. The one I mean is the old sideways-going Terrible Billy. Poor old creature! to work so many years as he has done for man, and then to be eaten at last, seems a hard fate; but who or what can escape that inexorable shadow, death?

It may be the destiny of some of ourselves to be eaten; for I fully believe the natives of these regions look upon all living organisms as grist for their insatiable mills. As night came on, I was compelled to lie down at last, but was so bitten and annoyed by the ants, that I had to keep moving about from place to place the whole night long, while the [in]sensible Jimmy lay sleeping and snoring, though swarmed over and almost carried away by the ants, as peacefully as though he had gone to rest under the canopy of costly state, and lulled with sounds of sweetest melody. I could not help moralising, as I often stood near him, wondering at his peace and placidity, upon the differences of our mental and physical conditions: here was one human being, young and strong, certainly, sleeping away the, to me, dreary hours of night, regaining that necessary vigour for the toils of the coming day, totally oblivious of swarms of creeping insects, that not only crawled all over him, but constantly bit into

his flesh; while another, who prided himself perhaps too much upon the mental powers bestowed by God upon him, was compelled by the same insects to wander through the whole night, from rock to rock and place to place, unable to remain for more than a moment or two anywhere; and to whom sleep, under such circumstances, was an utter impossibility. Not, indeed, that the loss of sleep troubles me, for if any one could claim to be called the sleepless one, it would be I—that is to say, when engaged in these arduous explorations, and curtained by night and the stars; but, although I can do without sleep, I require a certain amount of horizontal repose, and this I could not obtain in this fearful glen. It was, therefore, with extreme pleasure that I beheld the dawn, and—

> "To the eastward where, cluster by cluster,
> Dim stars and dull planets that muster,
> Waxing wan in a world of white lustre,
> That spread far and high."

No human being could have been more pleased than I at the appearance of another day, although I was yet doomed to several hours more misery in this dreadful gorge. The pigeons shot last night were covered within and without by ants, although they had been put in a bag. The horses looked wretched, even after watering, and I saw that it was actually necessary to give them a day's rest before I ventured with them into the frightful sandhills which I could see intervened between us and the distant ridges. Truly the hours I spent in this hideous gorge were hours of torture; the sun

roasted us, for there was no shade whatever to creep into; the rocks and stones were so heated that we could neither touch, nor sit upon them, and the ants were more tormenting than ever. I almost cried aloud for the mountains to fall upon me, and the rocks to cover me. I passed several hours in the marble bath, the only place the ants could not encroach upon, though they swarmed round the edge of the water. But in the water itself were numerous little fiendish water-beetles, and these creatures bit one almost as badly as the ants. In the bath I remained until I was almost benumbed by the cold. Then the sunshine and the heat in the gorge would seem delightful for a few minutes, till I became baked with heat again. The thermometer stood at 106° in the shade of the only tree. At three P.M. the horses came up to water. I was so horrified with the place I could no longer remain, though Jimmy sat, and probably slept, in the scanty one tree's shade, and seemed to pass the time as comfortably as though he were in a fine house. In going up to the water two of the horses again fell and hurt themselves, but the old blear-eyed mare never slipped or fell. At four P.M. we mounted, and rode down the glen until we got clear of the rough hills, when we turned upon our proper course for the ridges, which, however, we could not see. In two or three miles we entered the sandhill regions once more, when it soon rose into hills. The triodia was as thick and strong as it could grow. The country was not, so to say, scrubby, there being only low bushes and scrubs on the sandhills, and casuarina trees of beautiful outline and appearance

in the hollows. When the horses got clear of the stones they began to eat everything they could snatch and bite at.

At fifteen miles from the gorge we encamped on a patch of dry grass. The horses fed pretty well for a time, until the old mare began to think it time to be off, and she soon would have led the others back to the range. She dreaded this country, and knew well by experience and instinct what agony was in store for her. Jimmy got them back and short-hobbled them. There were plenty of ants here, but nothing to be compared to the number in the gorge, and having to remove my blankets only three or four times, I had a most delightful night's rest, although, of course, I did not sleep. The horses were sulky and would not eat; therefore they looked as hollow as drums, and totally unfit to traverse the ground that was before them. However, this had to be done, or at least attempted, and we got away early. We were in the midst of the sandhills, and here they rose almost into mountains of sand. It was most fatiguing to the horses, the thermometer 104° in the shade when we rested at twenty-two miles. Nor was this the hottest time of the day. We had been plunging through the sand mountains, and had not sighted the ridges, for thirty-seven miles, till at length we found the nearest were pretty close to us. They seemed very low, and quite unlikely to produce water. Reaching the first, we ascended it, and I could see at a glance that any prospect of finding water was utterly hopeless, as these low ridges, which ran north and south, were merely a few oblique-lying layers of upheaved granite, not much higher than the sandhills which

surrounded them, and there was no place where water could lodge even during rains. Not a rise could be seen in any direction, except, of course, from where we had come. We went on west five or six miles farther to the end of these, just about sundown: and long, indeed, will that peculiar sunset rest in my recollection. The sun as usual was a huge and glaring ball of fire that with his last beams shot hot and angry glances of hate at us, in rage at our defiance of his might. It was so strange and so singular that only at this particular sunset, out of the millions which have elapsed since this terrestrial ball first floated in ether, that I, or indeed any white man, should stand upon this wretched hill, so remote from the busy haunts of my fellow men. My speculations upon the summit, if, indeed, so insignificant a mound can be said to have a summit, were as wild and as incongruous as the regions which stretched out before me. In the first place I could only conclude that no water could exist in this region, at least as far as the sand beds extend. I was now, though of course some distance to the south also, about thirty miles to the west of the most western portion of the Rawlinson Range.

From that range no object had been visible above the sandhills in any westerly direction, except these ridges I am now upon, and from these, if any other ranges or hills anywhere within a hundred miles of the Rawlinson existed, I must have sighted them. The inference to be drawn in such a case was, that in all probability this kind of country would remain unaltered for an enormous distance, possibly to the very banks of the Murchison River itself. The question very naturally arose, Could the country be

GILL'S PINNACLE.

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penetrated by man, with only horses at his command, particularly at such a heated time of year? Oh, would that I had camels! what are horses in such a region and such a heated temperature as this? The animals are not physically capable of enduring the terrors of this country. I was now scarcely a hundred miles from the camp, and the horses had had plenty of water up to nearly halfway, but now they looked utterly unable to return. What a strange maze of imagination the mind can wander in when recalling the names of those separated features, the only ones at present known to supply water in this latitude—that is to say, the Murchison River, and this new-found Rawlinson Range, named after two Presidents of the Royal Geographical Society of London. The late and the present, the living and the dead, physically and metaphysically also, are not these features, as the men, separated alike by the great gulf of the unknown, by a vast stretch of that undiscovered country from whose bourne no traveller returns?

The sun went down, and I returned to my youthful companion with the horses below. We were fifty-one miles from the water we had left. The horses were pictures of misery, old Buggs's legs had swelled greatly from the contusions he had received in falling on the slippery rocks. The old black mare which I rode, though a sorry hack, looked worse than I had ever seen her before, and even the youthful and light-heeled and hearted Diaway hung his head, and one could almost span him round the flanks. The miserable appearance of the animals was caused as much by want of food as want of water, for they have scarcely eaten a mouth-

ful since we left the pass; indeed, all they had seen to eat was not inviting.

We slowly left these desolate ridges behind, and at fifteen miles we camped, Jimmy and I being both hungry and thirsty. Our small supply of water only tantalised, without satisfying us whenever we took a mouthful. We now found we had nothing to eat, at least nothing cooked, and we had to sacrifice a drop of our stock of water to make a Johnny-cake. It was late by the time we had eaten our supper, and I told Jimmy he had better go to sleep if he felt inclined; I then caught and tied up the horses, which had already rambled some distance away. When I got back I found Jimmy had literally taken me at my word; for there he was fast asleep among the coals and ashes of the fire, in which we had cooked our cake. I rolled him over once or twice to prevent him catching fire, but he did not awake The night was very warm; I tried to lay down on my rug, but I was in such pain all over from my recent accident, that I could not remain still. I only waited to allow Jimmy a little sleep, or else he would have fallen off his horse, and caused more delay. I walked to, and tried to console, the horses. Sleepless and restless, I could no longer remain.

Fast asleep is Armor lying—do not touch him; do not wake him; but Armor had to be awakened. But first I saddled and put up everything on the horses. Jimmy's lips were cracked and parched, and his tongue dry and half out of his mouth; I thought the kindest way to wake him was to pour a little water into his mouth. Up he jumped in a moment, and away we went at three o'clock in the morning, steering by the stars until daylight; slowly moving

over sandhill after sandhill. Soon after sunrise we fell in with our outgoing track, and continued on, though we had great trouble to keep the horses going at all, until we reached our old encampment of the night before last, being now only fifteen miles from the water. For the last few miles the horses had gone so dreadfully slow, I thought they would give in altogether. So soon as they were unsaddled they all lay down, shivering and groaning fearfully.

To see a horse in a state of great thirst is terrible, the natural cavity opens to an extraordinary size, and the creature strains and makes the most lamentable noises. Mares are generally worse in these cases than horses. Old Buggs and the mare were nearly dead. Diaway suffered less than the others. We had yet a small quantity of water in our bag, and it was absolutely necessary to sacrifice it to the horses if we wished them ever to return. We had but three pints, which we gave to Buggs and the mare, Diaway getting none. What the others got was only just enough to moisten their tongues. Leaving this place at eleven A.M., we reached the gorge at sundown, travelling at the rate of only two miles an hour. The day was hot, 104° at eleven A.M. When we took the saddles off the horses, they fell, as they could only stand when in motion—old Buggs fell again in going up the gorge; they all fell, they were so weak, and it took nearly an hour to get them up to the bath. They were too weak to prevent themselves from slipping in, swimming and drinking at the same time; at last old Buggs touched the bottom with his heels, and stood upon his hind-legs with his fore-feet against the rock wall, and his head bent

down between, and drank thus. I never saw a horse drink in that fashion before.

It was very late when we got them back to the camp-tree, where we let them go without hobbles. The ants were as rampant as ever, and I passed another night in walking up and down the glen. Towards midnight the horses came again for water, but would not return, preferring to remain till morning rather than risk a passage down in the dark.

I went right up to the top of the mountain, and got an hour's peace before the sun rose. In the morning all the horses' legs were puffed and swelled, and they were frightened to move from the water. I had great trouble in getting them down at all. It was impossible to ride them away, and here we had to remain for another day, in this Inferno. Not Dante's, gelid lowest circle of Hell, or city of Dis, could cause more anguish, to a forcèd resident within its bounds, than did this frightful place to me. Even though Moses did omit to inflict ants on Pharaoh, it is a wonder Dante never thought to have a region of them full of wicked wretches, eternally tortured with their bites, and stings, and smells. Dante certainly was good at imagining horrors. But imagination can't conceive the horror of a region swarming with ants; and then Dante never lived in an ant country, and had no conception what torture such creatures can inflict. The smaller they are the more terrible. My only consolation here was my marble bath, which the horses had polluted; within its cool and shady depths I could alone find respite from my tormentors. Oh, how earnestly did I wish that its waters were the waters of oblivion, or that I could quaff some

kind nepenthe, which would make me oblivious of my woes, for the persistent attacks of the ants unceasingly continued

"From night till morn, from morn till dewy eve."

Here of course we had no dewy eve. Only one slight source of pleasure at length occurred to me, and that was, that Jimmy began to shift about a bit at last. On the 26th, with what delight I departed from this odious gorge after another night of restlessness, agony, and misery, may perhaps be imagined, though of course I was indebted to the glen for water, and unless we actually give up our lives, we cannot give up that. There was a good deal of water in this bath, as may be supposed when horses could swim about in it. I called it Edith's Marble Bath, after my niece, having named Glen Edith also after her on my former expedition. The stone here is not actually marble, though very like it. I saw no limestone in this range; the only approach to it is in the limestone formation in the bed of the ancient Lake Christopher, mentioned as lying to the west of the Rawlinson Range. The stone here was a kind of milky quartz. We kept away as much as possible off the rough slopes of the range, and got to Glen Helen at night, but old Buggs knocked up, and we had to lead, beat, and drive him on foot; so that it was very late before we got to the glen. We got all three horses back to the pass early the next day. No natives had appeared, but the horses had never been seen since I left. Oh, didn't I sleep that night! no ants. Oh, happiness! I hadn't slept for a week.

The next day, the 28th of February, Gibson and

Jimmy went to look for the mob of horses. There was a watering-place about two miles and a half south from here, where emus used to water, and where the horses did likewise; there they found all the horses. There was a very marked improvement in their appearance, they had thriven splendidly. There is fine green feed here, and it is a capital place for an explorer's depot, it being such an agreeable and pretty spot. Gibson and Jimmy went to hunt for emus, but we had none for supper. We got a supply of pigeons for breakfast. Each day we more deeply lament that the end of our ammunition is at hand. For dinner we got some hawks, crows, and parrots. I don't know which of these in particular disagreed with me, but I suppose the natural antipathy of these creatures to one another, when finding themselves somewhat crowded in my interior, was casus belli enough to set them quarrelling even after death and burial; all I knew was the belli was going on in such a peculiar manner that I had to abandon my dinner almost as soon as I had eaten it. It is now absolutely necessary to kill a horse for food, as our ammunition is all but gone. Mr. Tietkens and I went to find a spot to erect a smoke-house, which required a soft bank for a flue; we got a place half a mile away. Thermometer 104°. Mr. Tietkens and I commenced operations at the smoke-house, and the first thing we did was to break the axe handle. Gibson, who thought he was a carpenter, blacksmith, and jack-of-all-trades by nature, without art, volunteered to make a new one, to which no one objected. The new handle lasted until the first sapling required was almost cut in two, when the new handle came

in two also; so we had to return to the camp, while Gibson made another handle on a new principle. With this we worked while Gibson and Jimmy shod a couple of horses. A pair of poking brutes of horses are always away by themselves, and Mr. Tietkens and I went to look for, but could not find them. We took the shovel and filled up the emu water-hole with sand, so that the horses had to show themselves with the others at the pass at night. For two or three days we shod horses, shot pigeons, and worked at the smoke-house. I did not like the notion of killing any of the horses, and determined to make a trip eastwards, to see what the country in that direction was like. We chopped up some rifle bullets for shot, to enable Gibson and Jimmy to remain while we were away, as a retreat to Fort Mueller from here was a bitter idea to me. Before I can attempt to penetrate to the west, I must wait a change in the weather. The sky was again becoming cloudy, and I had hopes of rain at the approaching equinox.

The three horses we required for the trip we put down through the north side of the pass. On March 10th, getting our horses pretty easily, we started early. As soon as we got clear of the pass on the north side, almost immediately in front of us was another pass, lying nearly east, which we reached in five miles. I called this the Weld Pass. From hence we had a good view of the country farther east. A curved line of abrupt-faced hills traversed the northern horizon; they had a peculiar and wall-like appearance, and seemed to end at a singular-looking pinnacle thirty-four or five miles away, and lying nearly east. This abrupt-faced

range swept round in a half circle, northwards, and thence to the pinnacle. We travelled along the slopes of the Rawlinson Range, thinking we might find some more good gorges before it ended, we being now nearly opposite the Alice Falls. One or two rough and stony gullies, in which there was no water, existed; the country was very rough. I found the Rawlinson Range ended in fifteen or sixteen miles, at the Mount Russell* mentioned before. Other ranges rose up to the east; the intervening country seemed pretty well filled with scrub. We pushed on for the pinnacle in the northern line, but could not reach it by night as we were delayed en route by searching in several places for water. The day was hot, close, cloudy, and sultry. In front of us now the country became very scrubby as we approached the pinnacle, and for about three miles it was almost impenetrable. We had to stop several times and chop away limbs and boughs to get through, when we emerged on the bank of a small gum creek, and, turning up its channel, soon saw some green rushes in the bed. A little further up we saw more, brighter and greener, and amongst them a fine little pond of water. Farther up, the rocks rose in walls, and underneath them we found a splendid basin of overflowing water, which filled several smaller ones below. We could hear the sound of splashing and rushing waters, but could not see from whence those sounds proceeded. This was such an excellent place that we decided to remain for the rest of the day. The natives were all round us, burning the country, and we could hear their cries. This morning we had ridden through two fresh fires, which they lit, probably, to

prevent our progress; they followed us up to this water. I suppose they were annoyed at our finding such a remarkably well-hidden place. It is a very singular little glen. There are several small mounds of stones placed at even distances apart, and, though the ground was originally all stones, places like paths have been cleared between them. There was also a large, bare, flat rock in the centre of these strange heaps, which were not more than two and a half feet high. I concluded—it may be said uncharitably, but then I know some of the ways and customs of these people—that these are small kinds of teocallis, and that on the bare rock already mentioned the natives have performed, and will again perform, their horrid rites of human butchery, and that the drippings of the pellucid fountains from the rocky basins above have been echoed and re-echoed by the dripping fountains of human gore from the veins and arteries of their bound and helpless victims. Though the day was hot, the shade and the water were cool, and we could indulge in a most luxurious bath. The largest basin was not deep, but the water was running in and out of it, over the rocks, with considerable force. We searched about to discover by its sound from whence it came, and found on the left-hand side a crevice of white quartz-like stone, where the water came down from the upper rocks, and ran away partly into the basins and partly into rushes, under our feet. On the sloping face of the white rock, and where the water ran down, was a small indent or smooth chip exactly the size of a person's mouth, so that we instinctively put our lips to it, and drank of the pure and gushing element. I firmly believe

this chip out of the rock has been formed by successive generations of the native population, for ages placing their mouths to and drinking at this spot; but whether in connection with any sacrificial ceremonies or no, deponent knoweth, and sayeth not. The poet Spenser, more than three hundred years ago, must have visited this spot—at least, in imagination, for see how he describes it:—

> "And fast beside there trickled softly down,
> A gentle stream, whose murmuring waves did play
> Amongst the broken stones, and made a sowne,
> To lull him fast asleep, who by it lay:
> The weary traveller wandering that way
> Therein might often quench his thirsty heat,
> And then by it, his weary limbs display;
> (Whiles creeping slumber made him to forget
> His former pain), and wash away his toilsome sweat."

There is very poor grazing ground round this water. It is only valuable as a wayside inn, or out. I called the singular feature which points out this water to the wanderer in these western wilds, Gill's Pinnacle, after my brother-in-law, and the water, Gordon's Springs, after his son. In the middle of the night, rumblings of thunder were heard, and lightnings illuminated the glen. When we were starting on the following morning, some aborigines made their appearance, and vented their delight at our appearance here by the emission of several howls, yells, gesticulations, and indecent actions, and, to hem us in with a circle of fire, to frighten us out, or roast us to death, they set fire to the triodia all round. We rode through the flames, and away.

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